12-1958

0028 Colorado Property Assessment Methods

Colorado Legislative Council

Report to the Colorado General Assembly:

COLORADO PROPERTY ASSESSMENT METHODS

COLORADO LEGISLATIVE COUNCIL

RESEARCH PUBLICATION NO. 28

December 1958

LEGISLATIVE COUNCIL

OF THE

COLORADO GENERAL ASSEMBLY

* * * * *

The Legislative Council, which is composed of five Senators, six Representatives, and the presiding officers of the two houses, serves as a continuing research agency for the legislature through the maintenance of a trained staff. Between sessions, research activities are concentrated on the study of relatively broad problems formally proposed by legislators, and the publication and distribution of factual reports to aid in their solution.

During the sessions, the emphasis is on supplying legislators, on individual request, with personal memoranda, providing them with information needed to handle their own legislative problems. Reports and memoranda both give pertinent data in the form of facts, figures, arguments, and alternatives, without these involving definite recommendations for action. Fixing upon definite policies, however, is facilitated by the facts provided and the form in which they are presented.

LEGISLATIVE COUNCIL

REPORT TO THE

COLORADO GENERAL ASSEMBLY

COLORADO PROPERTY ASSESSMENT METHODS

Research Publication No. 28

December, 1958

STATE OF COLORADO

Legislative Council

STATE CAPITOL - DENVER 2, COLORADO

TRANSMITTAL LETTER

December 17, 1958

Senator Ray B. Danks
Colorado Legislative Council
Denver, Colorado

Dear Senator Danks:

Transmitted herewith is the report of the Assessment Methods Committee of the Legislative Council pursuant to H. J. R. 31, which directed the Legislative Council to study: 1) the assessment methods and procedures used by the county assessors and Tax Commission; 2) the statutes concerning property assessment; and 3) the uniformity of assessments within and among the 63 counties of the state.

The assignment was divided into two parts: 1) a methods and procedures study; and 2) an assessment-sales or sales ratio study.

This report concerns the first part of the assignment, namely, the methods and procedures study. It also contains conclusions adopted by the committee as to the sales ratio study. Harold Ballard, former assessor of San Miguel County and former president of the County Assessors Association, was retained in July of 1957 to supervise the methods and procedures study. Preliminary staff work on this phase of the study was begun in July of 1957.

The 41st General Assembly, in the 1958 session, renewed the authority to conduct the over-all assessment study. Early in 1958 a Council committee was appointed to work with the staff. That committee was composed of:

Senator David J. Clarke, Chairman
Representative Ray Black
Representative Palmer Burch
Representative Charles R. Conklin
Senator T. Everett Cook
Representative R. S. Crites
Senator Fay DeBerard
Representative Guy Poe, Vice Chairman
Representative James M. French
Senator Wilkie Ham
Senator Ranger Rogers
Senator Herrick S. Roth
Representative Arthur M. Wyatt

Committee meetings were held for approximately ten days during the past year in developing the study and in considering the findings and conclusions. The committee believes that this report provides a detailed blueprint of the problems facing the State of Colorado in the administration of the property tax.

Because of limited time and funds the committee decided to postpone the utility study and recommends that the 42nd General Assembly renew the authority of the Council to complete that phase of the assessment study.

The members of the committee who attended the meeting on December 12, 1958 voted unanimously to forward the report on the following motion: "The Committee on Assessment Methods accepts the report of the staff with its findings and conclusions; and recommends that the report be transmitted to the Legislative Council with the recommendation that the General Assembly consider it fully and implement the conclusions into law as it deems necessary."

The committee also voted unanimously to recommend that the sales ratio study be continued and that the administration of this function be left in the hands of the Legislative Council for at least two years.

The project coordinator has acquired considerable information and experience during the course of this study. His contract with the Council expires April 30, 1959 so he will be available to the General Assembly for discussing the various aspects of this study until that date.

The Committee on Assessment Methods wishes to express its appreciation to the County Assessors Association, the 63 county assessors, the Tax Commission and the many public officials and private citizens who have aided the committee in carrying out the assignment.

Sincerely yours,

/s/ David J. Clarke, Chairman

FOREWORD

In studying the methods of assessment being used by the sixty-three county assessors and the Colorado tax commission, as directed by House Joint Resolution 31 passed at the First Regular Session of the Forty-First General Assembly, a special staff of the Legislative Council has spent one and one-half years in gathering a mass of information. A summarization of this information, together with findings and conclusions developed from it, is presented in the report which follows. However, a great quantity of detailed, technical material gathered during the course of this study does not lend itself to inclusion in this report, but has, nevertheless, provided the basis for many of the conclusions. These materials are available in the Council files for use by the standing committees of the General Assembly, as well as for the use of individual members.

The resolution directed the Council to contact each county assessor in the state. In the course of the study, the staff has gone to each county at least once and to most counties twice or more.

The first step in this study was a tour of the state by the project coordinator to observe assessment practices in each area and each county of the state, and to inform officials and people in all parts of the state concerning the objectives of the study. Ten regional meetings were held around the state, to which all assessors in each region were invited, and which all but three of the sixty-three assessors attended.

At the meetings the assessors, as a group, were briefed on why the problem of assessment methods was being studied, what the General Assembly hoped to accomplish by the study, and how the study would be conducted. In turn, the assessors told of the problems and conditions common to the region in which the meeting was held.

All assessors present at the meetings were interviewed individually regarding their assessment methods, qualifications for office, assessment and office staff, office space, furniture and equipment, records, and opinions and attitudes concerning property tax assessment problems.

During this first tour, in addition to the regional meetings, and the individual interviews of assessors, the offices of thirty of the county assessors were visited, three in each of the ten regions. During these visits, records were inspected and assessors and their assistants were interviewed at greater length. Particular attention was given to administrative procedures, uniformity and adequacy of office records, the use of the appraisal manual, the schedule of land valuations being used, and any assessment problems peculiar to each county.

In each of the thirty counties the coordinator also met with a representative group of local taxpayers. These people had been invited to attend the meetings, having been selected in advance with the aid and advice of the county agricultural agent, with a view to having all economic interests

and all parts of the county represented by people who were known to be interested in property tax problems. At these meetings, the coordinator explained both the sales-ratio study and the assessment methods study. Problems which might be encountered in each county in arriving at equitable assessments were discussed. A great deal of information concerning local economic conditions was gained from these meetings.

After these preliminary visits about the state, information gathered during the visits was compiled and analyzed. The sections of the Constitution and Colorado statutes relating to assessment were thoroughly analyzed. Court decisions relating to assessment were studied. The constitutions and assessment statutes of other states were examined. Tax commission policies were carefully analyzed. In particular, the Assessor's Real Estate Appraisal Manual was analyzed in detail. Similar manuals from other states were obtained and reviewed.

Many people were consulted with reference to particular problems under study. These included professional appraisers, realtors, leaders of various organized groups of taxpayers, governmental agencies possessing information which might be of use, those who participated in the formulation of policy during the reappraisal program, tax commission personnel, and leaders among the county assessors.

After outlining, in detail, the various problems, and gathering as much data as could be obtained from other sources, another field investigation in the counties was undertaken. The project coordinator and his assistant then spent three and one-half months in visiting the office of every county assessor in the state. These visitations were carefully planned and scheduled. Time was allotted to each county, varying from one-half man day in the smallest counties to ten man days in the largest. Procedures were carefully planned in advance of the visits.

Standard forms were prepared to be filled out during the visits as a matter of record and to insure uniformity of results. It was determined what people were to be consulted, other than the county assessors, and with the cooperation of the assessors advance preparations were made for such consultations.

During the visits, county commissioners, county clerks, county agricultural agents, taxpayers who had participated in the reappraisal program, and realtors, among others, were consulted with reference to various phases of the study. A mass of data was gathered from the records of the county assessors. Assessors and their assistants were interviewed concerning their assessment practices, their problems, their theories concerning assessment, and their reactions to various tentative proposals. Considerable time was spent in investigating real estate sales with reference to the accuracy of information obtained from the real estate conveyance certificates, information which had been omitted from certain certificates, the circumstances of the sale, the motivations of the buyers, and the details of the assessment.

The mass of information which was gathered has been compiled, carefully analyzed and filed. In the preparation of this report, assessment policies and practices have been summarized upon the basis of the information available, and findings and conclusions have been formulated.

In the course of the study, considerable variation has been found from county to county in the methods of assessment being used, in the exact manner of applying assessment policy in practice, and in the assessments that have been made under similar policies. In making comparisons of assessments and of methods used in making them, there has been no attempt to determine that one county assessor was correct and another was incorrect. Instead, the object has been to show that differences do exist between counties in terms of comparisons of assessed valuations, and that such differences result in lack of equalization; to determine the reasons for the differences; and to suggest improved methods and procedures designed to produce more uniform results.

In the conduct of this study, there has been close and continuous cooperation with the members of the staff who were conducting the sales ratio study. Close attention was given to the results of the sales ratio study, much attention is given to those results in the report which follows, and many conclusions with reference to the effectiveness of various methods of assessment have been drawn from them.

Harold Ballard has served as project coordinator for this study with able assistance from Peter Romboch.

December 31, 1958

Lyle C. Kyle
Director

SUMMARY OF FINDINGS AND CONCLUSIONS

Since its admission to the Union in 1876, Colorado has had a property tax which has provided a part of the revenue needed for the operation of the State government and most of the revenue needed for the operation of the governments of its counties and their political subdivisions. During its entire history the state has been confronted with problems relating to the administration of the property tax. From the beginning, efforts at the state level to achieve equalization of property tax assessments at full cash value, as required by the State Constitution, have failed to achieve that goal. A state tax commission of three members was created in 1913 to supervise the assessment of property and was given broad powers to enforce the requirements of the law. The latest attempt, a state-directed re-appraisal of all the real property in the state, which was undertaken in 1947 and made effective in 1952, resulted in considerable improvement in assessments, but failed to produce state-wide equalization of assessments.

Concern for the equalization of assessments has been heightened in recent years by ever-increasing demands for revenue from the property tax and by the development of the practice of distributing funds derived from other revenue sources to local governments upon the basis of their assessed valuations. By 1957, the concern had become so great that the Forty-First General Assembly, by House Joint Resolution Number 31, directed the Colorado Legislative Council to conduct a study of the methods and procedures being used by the county assessors and the state tax commission in assessing property for purposes of taxation. The Council was also directed to examine into the matter of uniformity of property assessments within and among the sixty-three counties of the state and to study the assessment statutes under which the county assessors and tax commission operate.

Nature of Property Tax

Basic to any study of property assessments is a recognition of certain fundamental principles of the property tax. The property tax is a tax upon property rather than upon persons. It is based upon the value of the property which is subject to taxation. The assessor assigns to each property an assessed valuation which should be relatively uniform. The assessed valuation of each property should be either its full market value, or a consistent fraction thereof. The amount of the property tax is not based upon the ability of the owner of property to pay. It is not related to the amount of governmental service provided to either the property or its owner. Assessed valuations should not be adjusted to influence the amount of taxes paid. They should merely be a basis of distributing the tax levy, whatever it may be, equitably over the property subject to the levy. The tax is administered primarily by one unit of government, the county, for the benefit of many units of government which levy property taxes--the state, school districts, municipalities, and various types of special districts.

Need for Equalization

Equalization of property assessments is a primary requisite of good property tax administration. Equalization means the assignment of an assessed valuation, to each property subject to the tax, which is uniform in comparison with other assessed valuations when compared with the average market value of the property. The purpose of equalization is to distribute each tax which is levied, over all the property upon which it is levied, in proportion to the value of the property, so that each property owner will pay his just share of the tax, no more and no less.

The problem of equalization is unavoidably state-wide in extent. This is true for a number of reasons. First, the State Constitution provides that property taxes shall be assessed under general laws which shall prescribe methods of assessment to secure assessments that are just and equalized within the territorial limits of the authority levying the tax. Second, since one of the authorities levying a tax is the state government, equalization of assessed valuations upon all property in the state is required. Third, the distribution of the major portion of state public school funds to counties is based upon the requirement that each county levy a tax of twelve mills upon its assessed valuation in order to become eligible for participation in the distribution, another tax levy which is state-wide in extent. Fourth, the territorial limits of various jurisdictions levying taxes, namely joint school, municipal and special districts, overlap to such an extent that only state-wide equalization will make possible equalization within each jurisdiction. And, fifth, equalization among all classes of property can be achieved only by state-wide equalization of all property because some classes of property are assessed by the state tax commission, and others are of necessity uniformly assessed state-wide under statutory provisions or tax commission directives.

Present Lack of Equalization

A one and one-half year study of comparative levels of assessment and of methods and procedures of assessment used by the county assessors and the state tax commission has shown that, in spite of very material progress achieved during the past decade, assessed valuations are not equalized either among or within counties. A study of all real property sales occurring between July 1, 1957, and June 30, 1958, and a comparison of sales considerations with the assessed valuations of the properties sold has shown a wide deviation in sales ratios.

This study shows that the average sales ratio throughout the state during the one year period was 27.9 per cent. Within individual counties, the average ratios varied from a low of 14.1 per cent in one county to a high of 40.9 per cent in another county, the sales ratios of nineteen counties were higher than the state average, and the sales ratios of forty-four counties were lower than the state average.

Within counties, the deviation from county averages for individual sales ratios ranged from 13.8 percentage points below the county average to 29.0 percentage points above.

Significant lack of equalization among various classes of property also was shown. Following are the state average sales ratios for the classes of property which were subjected to separate study:

Urban one-family dwellings	28.1%
Urban multi-family dwellings	31.3
Urban commercial buildings	32.0
Urban industrial buildings.....	37.1
Vacant urban land	21.4
Agricultural land having improvements	29.5
Agricultural land having no improvements	20.2
Miscellaneous rural land having improvements	25.6
Miscellaneous rural land having no improvements	16.7

The average ratio for all urban property was 29.5 per cent and the average ratio for all rural property was 24.3 per cent.

Variation among average ratios was found within these major classifications of property. For instance, within the class of urban one-family dwellings state average ratios according to date of construction were as follows:

Houses built in the 1950's	31.8%
Houses built in the 1940's	29.1
Houses built in the 1930's	27.0
Houses built in the 1910's and 1920's	24.6
Houses built prior to 1910	22.0

Methods of Assessments Prescribed by Law and by Tax Commission

Methods of assessment presently prescribed by law and by the state tax commission have been studied to determine whether such methods are designed to produce equalized assessments within and among classes of property. Methods were studied separately for all major classes of property, namely, agricultural land, extractive land, situs land, improvements on land, livestock, merchandise and manufactures, all other personal property, and public utility property.

For the assessment of property in general the tax commission has prescribed that assessments shall be made at the level of value existing in the year 1941.

For the assessment of agricultural land the tax commission has prescribed a method of appraising such land according to its capability of producing income.

For the assessment of extractive land no uniform method of assessment has been prescribed. Certain types of producing mines are to be assessed according to a statutory formula based upon the production of the year preceding the assessment. Lands producing oil and gas are assessed according to a production formula prescribed by the tax commission. The assessment of other extractive lands is left to the discretion of the assessor. There has been no provision, in tax commission policy, for adjustment of assessed valuations of extractive lands to a 1941 level of cost.

For the assessment of situs land, (which derives its value from its use as the site for non-agricultural and non-extractive type buildings and activities) the tax commission has prescribed that assessments shall be made at forty per cent of average current market value. Assessment at forty per cent of average current market value is deemed to represent an adjustment to the 1941 level of value for this class of property.

For the assessment of improvements, primarily buildings, the tax commission has published the Assessors' Real Estate Appraisal Manual which includes a detailed method of appraising improvements by classifying buildings and determining according to the classification a reproduction cost of buildings using costs of construction existing in the year 1941. This manual, with the passage of time, has become obsolete. It contains no provision for appraisal of newer types of buildings constructed with new types of materials and with new methods of construction. Its use does not produce assessed valuations which are equalized, with reference to current values, as is adequately demonstrated by the sales ratio study.

For the assessment of livestock, the tax commission publishes annually a schedule of recommended minimum average valuations per head to be used by the assessors in assessing various classes of livestock. It is intended that use of these recommendations will result in assessed valuations upon livestock which are equalized with valuations upon other classes of property. The problem of assessing above or below the recommended minimum average valuations according to the quality of livestock is left to the discretion of the individual assessors.

For the assessment of merchandise and manufactures, the law provides that the measure of value shall be the average amount of moneys and credits invested in merchandise and manufactures during the year of the assessment. Since such a measure obviously cannot be used, the tax commission has prescribed that the measure of value shall be the average amount invested during the year preceding the assessment, and that the assessment

shall be fifty per cent of such average value. It has further prescribed that the determination of the average amount invested shall be based upon at least two inventories.

For the assessment of personal property, other than livestock and merchandise and manufactures, the tax commission has prescribed the general policy that such property shall be assessed at forty per cent of cost to the owner, regardless of age or condition. Variations from this general policy have been prescribed for particular categories of personal property.

For the assessment of public utility property, which includes the property of certain types of corporations as specifically enumerated by law, such as railroads, electric power companies, telephone and telegraph companies, pipe line companies, etc., the tax commission itself is assigned by law the duty of making such assessments. It has adopted the policy of determining a value of the entire property of each corporation by considering the factors of book value of the physical plant, average market value of stocks and bonds, and capitalization of average net income for a five year period.

A portion of the value which has been determined is allocated to Colorado for the property of interstate corporations situated in Colorado. An assessment is made at forty per cent of the allocated value, and this assessment is distributed to the counties and their political subdivisions according to miles of main track for railroads, miles of wire for telephone and telegraph companies, location of property for electric companies, and various other means for other types of corporations.

Actual Assessment Practices

A careful study has been made of the actual practices of each of the sixty-three county assessors by visiting their offices, examining their records, and discussing with them their methods of assessing various classes of property. In general, it has been found that there is no uniformity of practice among assessors and that there is a general lack of exact compliance with the methods of assessment prescribed by law and by the tax commission.

Agricultural lands. The re-appraisal of agricultural lands under the methods prescribed by the tax commission has not been completely accomplished. In at least seven counties no such re-appraisal has been completed. In other counties re-appraisal has been accomplished in varying degrees.

Local advisory committees were used very effectively in some counties, ineffectively in others, and not at all in still others. Classification of lands according to production capability was very effectively accomplished in some counties and in some there was no classification at all, uniform valuations per acre being used

county-wide. The problem of obtaining sufficiently accurate data concerning average yields per acre of various crops, gross income derived from such crops, and net income realized was very great in all counties, and undoubtedly the validity of the assessed valuations determined from such data varied considerably from county to county.

As judged by sales ratios, there is considerable lack of equalization of valuations of agricultural land from county to county. The average county sales ratios for agricultural land varied from a low of 11.5 per cent in one county to a high of 44.7 per cent in another. The state average ratio for the class was 24.2 per cent. In general, ratios for irrigated lands were higher than for dry lands.

A comparison of assessed valuations of agricultural lands at county lines also showed a lack of equalization among counties. In no case were valuations comparable on both sides of a county line, and in many cases the difference was considerable.

Extractive lands. Extractive lands were not subjected to reappraisal. Assessments of producing mines are made in accordance with the method prescribed by statute. However, there is some variation in interpretation of the statute by assessors with reference to such matters as the exact accounting methods which should be used in determining "gross proceeds" and "net proceeds" for the purpose of determining an assessed valuation, the policy concerning inclusion of land within the unit assessed according to production, the manner of dividing a unit assessment according to production among counties when the production unit lies in more than one county, and the determination of which types of mines may be assessed according to production.

Lands producing oil and gas are assessed uniformly according to the method prescribed by the tax commission. Extractive lands which are not assessed according to production are assessed at the discretion of the individual assessors, and, as a result, there is much lack of uniformity in their assessments. The valuations used vary considerably from county to county; typically, a uniform valuation per acre is used within each county without regard for variations in the actual value of the land; little attention is paid to such indications of market or other value as may be available; and such valuations are not equalized with those on other classes of property.

In the assessment of severed mineral rights, some assessors assess all such rights at a minimum valuation of one dollar per acre, others assess them only upon the request of their owners, and others do not assess them.

Situs lands. The situation with reference to the re-appraisal of situs lands is very similar to that of agricultural lands. In some counties it was done in strict compliance with methods prescribed by the tax commission. In others, it was not done at all. In most counties the assessments have not been adjusted to maintain them at forty per cent of current market value. The sales ratio study shows that the state's average ratios for this class of land is 21.4 per cent for urban land and 16.7 per cent for rural land. Ratios of individual counties vary from a low of 15.3 per cent to a high of 66.7 per cent for urban land, and from a low of 6.8 per cent to a high of 60.6 per cent for rural land.

A particularly difficult problem with reference to the assessment of situs land relates to the assessment of land which has been converted from agricultural use to a situs use, such as a new residential subdivision, a commercial or industrial site. The practice of assessors in making this type of assessment is not uniform.

Improvements. Assessors are not uniformly applying the method of appraisal of improvements set forth in the Assessors' Real Estate Appraisal Manual. Classification of buildings varies considerably from county to county. Many adjustments outlined in the manual to compensate for variations are not used by some assessors. Some assessors have adopted variations of the manual for use in their counties. The policies of the tax commission with reference to allowance for losses of value because of depreciation or obsolescence are not uniformly applied.

The sales ratio study shows that the state average ratio for urban residential improvements, including land, is 28.1 per cent. Ratios of individual counties vary from a low of 15.8 per cent to a high of 49.1 per cent. Similar variations in average county ratios for commercial and industrial improvements are shown, with the state average ratios being 32.0 per cent for commercial improvements and 37.1 per cent for industrial improvements.

Livestock. In the assessment of livestock, the assessors tend to assess all livestock uniformly at the minimum average valuations recommended by the tax commission. This results in a lack of equalization of assessments within the class of livestock because of the fact that variations in quality of livestock are ignored, and variations in cost of marketing livestock from different parts of the state are also ignored.

Merchandise and Manufactures. In all counties except one, assessors are assessing stocks of merchandise and manufactures at not less than fifty per cent of the average invested in such merchandise and manufactures during the year preceding the assessment. There is considerable variation in practice in the determination of the average invested. In one county, the assessor attempts to determine the amount invested at the end of each month of the preceding year, by calculation where necessary, and to base the assessment upon the average of the twelve inventories. In many other

counties, the assessors base the assessment upon the average of twelve monthly inventories when twelve are returned to them, and upon the average of only two inventories when only two are returned. In some cases, when only two inventories are returned, the assessment is made at sixty-five per cent of the average of the two inventories. In other counties, the assessment is based upon fifty per cent of the average of no more than two inventories, even when more inventories are returned.

Other Personal Property. In the assessment of personal property, other than livestock and merchandise and manufactures, there is less uniformity in practice than with any other class of property. Some assessments are made at forty per cent of cost to the owner, without allowance for age or condition. Others are made at eighty per cent of the depreciated book value as reported by the owner of the property. In other cases, the cost of the property is converted to a 1941 level of cost and allowance is made therefrom for the age of the property. In other cases, a life schedule assessment is used, a particular item of property being assessed year after year at a given valuation without consideration of cost, age or condition. These variations in practice are found within each county as well as among counties.

Analysis of Faults of Assessment Administration

Assessment Methods. Methods of assessment currently prescribed by law, which are few, and by the Colorado tax commission are in themselves partially responsible for lack of equalization of assessed valuations. If these methods were strictly complied with and efficiently employed, equalization would still not be achieved.

The policy that assessments are to be made at the 1941 level of value is a basic cause of lack of equalization. This policy was promulgated with the adoption of the reappraisal program of 1947 to 1952. The Constitutional and statutory standard of assessment is full cash value. The Tax Commission decided, in 1952, that the 1941 level of value represented full cash value because 1941 was the last year in which a normal level of value existed. The inflation of value which had occurred subsequent to that year was considered to be abnormal and temporary. It was felt that adoption of a standard of assessment based on 1941 value would provide a constant base which could be adhered to in spite of annual fluctuations in value and which would provide constant equalization of assessments.

However, regardless of what interpretation is given to the term "full cash value", the only test that can be applied to determine the degree of equalization is a comparison with current average market value. Assessed valuations, to be equalized, must be either at full current average market value or at some consistent portion of it. For a number of reasons, assessed valuations based upon the value of a constant base year cannot be equalized with reference to current values.

The rate of inflation or deflation of value that occurs is not the same for all classes of property. It is not even the same within a given class of property. With the passage of time, it becomes increasingly difficult to determine what was the value existing in the base year.

The method of appraisal which was developed for agricultural land does not produce assessed valuations which are equalized with reference to current value. At the time of reappraisal, it was difficult to determine with any degree of certainty the average net income of land during the base period of 1934 to 1943, inclusive. Such determination is becoming increasingly difficult. Furthermore, the relationship between values determined by capitalization of net income for that period and those which might be determined by capitalization of net income for a later period is not necessarily the same in all areas of the state because of changes in the productivity of the land, in methods of cultivation, and in costs of operation.

The methods of assessment of extractive lands are not even tied to the 1941 base year. For producing mines, the statutory formula for assessment is used without any adjustment to what might have been a 1941 level of value. Annual fluctuations in value are automatically reflected by the changing market values of the product and costs of production which enter into the determination of the valuation. The same is true of the method used in assessing land which produces oil and gas. Non-productive lands are, in general, assessed at the same valuation year in and year out. No adjustment was made in these assessed valuations with re-appraisal. They tend to be higher than present market value.

The assessment of situs lands at forty per cent of market value, if actually done, would cause these lands to be assessed at a higher level than others, judging by the sales ratio study.

The 1941 basis of assessing buildings is breaking down with time. It is impossible to determine a base-year value for types of buildings which did not exist in the base year, built partly of materials which had not been developed in the base year and with methods of construction that had not been conceived in the base year. The rates of depreciation which have been adopted do not reflect truly the loss of value which occurs with age. The basis for classification of buildings seems to lack definitiveness so that even experienced appraisers do not classify buildings with any degree of uniformity.

The prescribed policy for the assessment of livestock tends to encourage a false equalization of valuations with every head of a given class of livestock being assessed at a uniform valuation without variation for differences in quality. The prescribed method of assessing merchandise does not result in the determination of a true average of the amount of investment in merchandise, and the fifty per cent basis of assessment is high in comparison with the percentage of market value assessed on other classes of property. The use of alternate methods of assessing on other classes of personal property is inconsistent, and the more commonly used method of assessing at forty per cent of cost without allowance for age or condition certainly does not produce equalized assessments.

Insofar as the book value of physical plant is used as one of the factors in determining the value of public utility property, equalization with reference to current value is not achieved. Furthermore, it is questionable whether the equalization factor of forty per cent used for this class of property results in equalization with other classes of property. It is questionable whether the present methods of distributing assessed valuations of public utilities to counties results in equalization within each county.

Organizational Faults. The lack of uniformity in the application of the prescribed methods of assessment, which has already been explained in some detail, further detracts from the achievement of equalized assessments. What are the reasons for this lack of uniformity?

The responsibility in each county for the assessment of property rests with the county assessor. The county assessors are not uniformly well qualified to perform the duties required of them. The job of assessment has become a highly technical one. The election of assessors from among candidates who are required only to be qualified voters and to be residents of the county for one year does not assure the selection of qualified assessors. The low salaries paid do not attract and hold well-qualified people. There is inadequate provision for training those who are elected.

The election of the county assessor results in his being subjected to political pressures which may detract from his effective enforcement of equalization. The need to seek re-election periodically interferes with the performance of duty. Election also is responsible for the attitude on the part of assessors that they are responsible primarily to the people who elect them, with the result that some assessors tend to administer their offices in such a manner as to give their own constituents an advantage over those of other counties. Therefore, competitive undervaluation among counties results.

Inadequate budgets provided to county assessors handicap them in their efforts to make good assessments. They are unable to hire sufficient help in many cases. The low wages paid to their employees makes it difficult for them to hire well-qualified people. Many do not have adequate equipment to operate their offices efficiently.

Enforcement of assessment laws and policies by the Colorado tax commission is insufficiently effective. The commission, because of inadequate appropriations, is understaffed for the task of providing adequate instruction and supervision of the assessment process. It is impossible for it to inspect the work of the assessors thoroughly enough to be able to enforce equalization. Such staff as it has is insufficiently qualified for the requirements of effective administration.

Understaffing makes it impossible for the tax commission to conduct the research which is necessary for the development of methods of assessment designed to produce equalized assessments, for thorough assessment of public utilities, and for effective evaluation of assessment results.

The commission type of organization does not lend itself to effective administration. It is indecisive, unaggressive and inefficient. The combination in the same body of the separate functions of direct assessment of public utilities and supervision of local assessments, which are administrative in nature, and of equalization, which is quasi-judicial in nature, is not conducive to good government. The performance of both types of functions detracts from effective performance of either. Further, it results in the situation that the tax commission sits in judgment on its own actions when, in performing the equalization function, it compares its own assessments of public utilities with assessments made by the county assessors.

The civil service status of the commissioners results in lack of responsibility to the executive authority, the General Assembly, or the taxpaying public.

The county and state boards of equalization are ineffective bodies for the accomplishment of the purpose for which they were intended. Since these are ex officio bodies, the members of such boards devote little attention to them. The county boards are almost completely ineffective, and the state board is little better. While taking practically no positive action in the direction of equalization, the boards tend to obstruct the efforts of the assessors and tax commission to accomplish equalization.

Findings and Conclusions.

In order to provide an organization which can effectively perform the functions of assessment of property and equalization of such assessments, using methods of assessment which are designed to and will result in equalized assessments, numerous changes need to be made.

At the state level, a separation of the administrative function of assessment and assessment supervision from the quasi-judicial function of equalization and appeals should be accomplished by the creation of a department of property taxation separate from the tax commission. This department should be headed by a director of property assessment appointed by the governor and preferably exempt from civil service. The director should have the authority, subject to the approval of the governor and the availability of appropriations, to organize the department, to create or abolish positions within the department, and prescribe the duties of and qualifications for such positions.

He should have the duties and possess the power and authority to assess the property of public utility corporations, setting up a specialized staff for this purpose. He should have a research staff to which should be assigned the duty of conducting research necessary to develop methods of assessment designed to produce equalized assessments, to provide information and instructions to assessors as needed, and to effectively evaluate assessment results. He should have both a specialized and general field staff for the supervision of assessors, the inspection of their work, and the enforcement of law and the policy of the department. He should have authority to prescribe methods of assessment consistent with the provisions of law and to enforce the use of such methods.

He should be authorized and required to organize and conduct an annual school of instruction for assessment personnel at both an elementary and advanced level. He should be authorized to arrange with any institution of higher education of the state for assistance in the operation of such school. He should be required to publish and revise annually a complete manual of instructions to county assessors.

He should be made responsible for the administration of the Realty Recording Act and the conducting of a continuous sales ratio study, which should be continued as a means of evaluating assessment results and developing improved methods of assessment.

A state assessment advisory board, consisting of the three tax commissioners, six county assessors and four legislators, should be created to advise the director of property assessment on matters of assessment policy.

The tax commission should be retained to perform the function of equalization at the state level. It should have the authority to raise or lower the assessed valuations of individual properties, of classes of property, or of all the property in a county. All actions of county boards of equalization or county boards of review should be subject to approval by the tax commission. It should hear appeals from taxpayers concerning the assessments on their property, and taxpayers should have the right of appeal from local authorities in all cases. It should hear appeals from county assessors from the orders of the director of property assessment. It should hear appeals by taxpayers, county assessors or county commissioners with reference to the assessment of public utility property by the director of property assessment. It should continue to act upon petitions for abatement or refund of taxes. It should have no authority to grant increases of levy above statutory limitations, but such increases should be made only upon the vote of taxpayers who would be subject to such increased levies.

Mobile homes should be exempted from the personal property tax and should be taxed on the basis of specific ownership in all cases, with adequate provisions for enforcement.

More definite provision for notification of assessment to the taxpayer and for exercise of the right of objection by the taxpaer should be made.

Assessments should be required to be made and equalized as near to full average current market value as is administratively possible.

A general revision of assessment law should be undertaken to repeal obsolete provisions, reconcile conflicting provisions, clarify ambiguous provisions, obtain a logical arrangement, and incorporate such reforms as are deemed necessary.

The tax commissioners should be exempted from civil service status. They should be responsible to the governor for satisfactory performance of their assigned functions. Provisions should be adopted by law for enforcement of penalties upon both the tax commission and the director of property assessment for failure to enforce assessment laws, and for the manner of removal for incompetence and neglect or refusal to perform their duties.

Both the county boards of equalization and the state board of equalization should be abolished by constitutional amendment. In place of the county board of equalization there should be created a county board of review composed of five members who are representative of taxpayer interests and who are selected by representatives of the various units of government levying taxes within a county. This board of review should hear all appeals of taxpayers objecting to assessments upon their property and should equalize the assessments in the county, subject to the approval of the director of property assessment and the tax commission. It should also act in an advisory capacity to the county assessor in matters of local assessment policy.

It should be provided by law that no person shall be eligible to be elected as county assessor who has not been examined and certified as eligible for election by the director of tax assessment. A proposal for amendment of the State Constitution should be submitted to the electorate providing for the appointment of county assessors by county conference boards composed of representatives of all units of government levying a tax within each county, except the State, from among candidates who have been examined and certified as eligible. Such assessors should be appointed for an indefinite term, subject to removal by the appointing authority at any time for cause as provided for by law.

Adequate appropriations should be made by the General Assembly to the department of property taxation and adequate budgets should be approved by county commissioners for the county assessors to permit them to perform adequately the duties which are assigned to them. The salary scales of the tax commissioners, director of property assessment, their employees, the county assessors and their employees should be re-evaluated in light of the need to attract and hold competent people. The Constitution should be amended to permit the salaries of county assessors to be increased or decreased at any time and to permit the General Assembly to consider any pertinent information in classifying counties for the purpose of setting scales of salaries for county assessors, as well as other county officers.

Land should be classified for purposes of assessment as agricultural, extractive or situs according to its use, as previously defined. Agricultural land should be assessed according to its capability of producing income through the production of agricultural products or the grazing of livestock. For purposes of such assessment, the land should be classified according to its production capability; and within each area in which

similar conditions of agricultural production prevail, each class of land should be assessed at a valuation per acre determined by capitalizing the average net income from such class of land, under average management, with typical farming practices, during a period of ten consecutive years.

All extractive land, if producing, should be assessed according to the production of extractive materials from it during the year preceding the assessment, the basis of assessment being the net proceeds of the year preceding, with a minimum assessment of ten per cent of the gross proceeds (the value of the product at the point of extraction). Non-productive extractive land should not be assessed at a valuation which is higher in relation to its average market value than the valuation on other classes of property.

All situs land should be assessed according to its average market value for the purpose for which it is used.

Improvements should be assessed according to their reproduction cost at the current level of costs with allowance for loss of value due to age, wear and tear, loss of utility, obsolescence, or local economic conditions, as determined by a continuous study of real property sales. A new manual for the appraisal of improvements based upon current costs of construction should be developed and revised annually.

The combined assessed valuations of improvements and land associated with them, composing an operating agricultural, extractive, commercial, industrial or residential unit, should not be higher in relation to the average market value of similar properties similarly situated than are those of other units.

Livestock should be assessed in such a manner as to reflect variations in actual value. Merchandise assessments should be based upon an average of inventories at the end of each month of the year preceding the assessment, actual or calculated. Other personal property should be assessed according to its cost, converted to the current level of cost, and adjusted for loss of value due to age, actual condition, and obsolescence.

In view of the difficulty of assessing personal property equitably, some consideration should be given to the possibility of adopting some other form of taxation on this class of property, in lieu of the property tax, such as a transaction tax, particularly in the case of merchandise and manufactures.

A further, full-scale, study of the assessment of public utility property should be undertaken to determine: the best methods of value determination; the method of assessing utilities and equalizing these valuations with other property; the allocation of this State's share of the total value of interstate systems; and the distribution of the assessed valuations to the political subdivisions.

TABLE OF CONTENTS

	Page
LETTER OF TRANSMITTAL	
FOREWORD	i
SUMMARY OF FINDINGS AND CONCLUSIONS	iv
TABLE OF CONTENTS	xix
LIST OF TABLES	xxiv
THE HISTORY OF THE PROPERTY TAX IN COLORADO	1
Early Attempts at Equalization	1
Legislative Action	2
Creation of Tax Commission	3
Equalization Since 1912	4
Exempting Certain Types of Property	5
Re-Appraisal Program Since 1947	5
Public Utility Assessments	7
Further Efforts Toward Equalization	9
Exemption of Household Furnishings and Personal Effects	9
Legislative Council Assignment to Study Assessment Methods	9
THE NATURE OF THE PROPERTY TAX	10
Assessed Valuation	11
Fundamental Principles of the Property Tax	12
Advantages and Disadvantages of the Property Tax	12
NEED FOR STATE-WIDE EQUALIZATION	14
The Constitutional Requirement of Equalization	14
The State Property Tax	15
Distributing State School Aid	15
Inter-County Special Districts	15
Need for Equalization Among Classes of Property	19
Public Utility Property	19
Producing Metal Mines	19
Stocks of Merchandise	19
All Classes of Livestock	20
Conclusions	22

Page

METHODS OF ASSESSMENT OF PROPERTY IN GENERAL 23

Property, Taxable and Exempt 23
Exemptions Based Upon the Ownership of Property 23
Exemptions Based Upon Nature of Property 24
Exemptions Based Upon the Use of Property 24
Exemptions Based Upon Nature, Ownership and Use of Property 24
Partial or Temporary Exemptions 25
Classification of Property for Taxation 25
Improvements on Land 26
Personal Property 26
Standard of Assessment 26
Constitutional Provision 26
Statutory Provision 26
Tax Commission Policy 27
Assessment Practice 28
Standard in Other States 29
Alternative Standards of Assessments 30
Arguments for Use of Actual Cash Value 31
Arguments Used in Opposition to the Use of Full Cash Value Assessments 31
Some of the Arguments Against Use of Full Cash Value Assessments Could be Overcome ... 32
Prescribed Percentage of Full Value 32
Base Year Standard of Assessment 32
Findings and Conclusions 33

THE ASSESSMENT OF AGRICULTURAL LAND 35

Constitutional and Statutory Provisions 35
Tax Commission Policy 37
Actual Practice 41
Crop-yield Information 42
Crop Prices 43
Costs of Operation 43
Land Classification 43
Use of 1934-1943 Base Period 44
Accomplishment by Counties 44
Comparisons of Assessed Valuations 46
The Sales-Ratio Study 47
Comparisons of Dry and Irrigated Land 48
Comparisons of Assessed Valuations at County Lines 49
Comparison by Crop Statistics 50
Findings and Conclusions 51

Page

THE ASSESSMENT OF EXTRACTIVE LAND 54

Mines and Mining Claims 54
Statutory Provisions 54
Tax Commission Policy and Assessment Practice.. 57
Assessments of Producing Mines 57
Non-Producing Mines 62
Level of Assessment 63
Coal Lands 64
Oil and Gas Lands 65
Mineral Rights 66
Timber Land 67
Miscellaneous Extractive Lands 67
Comments on Assessment of All Classes of Extractive Land 67
Findings and Conclusions 69

THE ASSESSMENT OF SITUS LAND 72

Constitutional and Statutory Provisions 72
Tax Commission Policy 72
Assessment Practice 75
Findings and Conclusions 80

THE ASSESSMENT OF IMPROVEMENTS 82

Constitutional and Statutory Provisions 82
Tax Commission Policy 82
Assessment Practice 87
Sales-Ratio Analysis 90
Criticism of Appraisal Manual 93
Manual is Over-complicated 96
Manual is Obsolete 97
Need for Manual Revision 97
Special Problem on Assessment of Farm and Ranch Improvements 98
Findings and Conclusions 101

THE ASSESSMENT OF PERSONAL PROPERTY 103

Exempt Personal Property 103
Taxable Personal Property 103
Livestock 104
Constitutional and Statutory Provision 104
Tax Commission Policy 104
Assessment Practice 110
Merchandise and Manufactures 113
Constitutional and Statutory Provisions 113
Tax Commission Policy 114
Actual Practice 115

Page

Personal Property Other Than Livestock and Merchandise 121
Findings and Conclusions 127

ASSESSMENT OF PUBLIC UTILITIES 129

Statutory Provisions 130
Actual Practice 132
Value Determination 132
Allocation 134
Equalization Factor 134
Distribution 134
Findings and Conclusions 137

ADMINISTRATIVE PROCEDURES 138

Property Ownership Records 139
Listing Real Property for Assessment 140
Listing Partially Owned or Secured Property ... 141
Obtaining Return of Taxable Personal Property 142
The Assessment Date 142
Exceptions to Assessment Date 143
Division of Livestock Assessments Among Counties 143
Assessment of Livestock Fed in Transit 144
Property Brought Into the State After the Assessment Date 145
Measure of Merchandise and Manufactures 146
Procedure of Obtaining a Schedule of Personal Property 146
Review of Assessments 147
Abstract of Assessment 149
Certification of Valuations to Taxing Jurisdiction.. 152
Assessment of Mobile Homes 152
Administration of Realty Recording Act 153
General Statutory Revision 155
Findings and Conclusions 155

ADMINISTRATIVE ORGANIZATION 160

County Assessor 161
Selection and Qualifications of County Assessor 161
Incumbent Assessors 163
Appointment of Assessors 164
Examination of Candidates 166
Term of Office 167

Page

Salaries of County Assessors 168
Training 172
Assistants 173
County Board of Equalization 174
Board of County Commissioners 177
The County Treasurer 179
The Colorado Tax Commission 181
Statutory Provisions 181
The State Board of Equalization 187
Findings and Conclusions 190
Preferred Plan of Reorganization 190
Alternate Plans 196

		Page
XVIII	Wholesale Price Index	122
XIX	Comparative Values and Assessed Valuations by Different Methods of Appraisal	123
XX	Comparison of Assessments of Machinery and Equipment by Three Methods	125
XXI	1958 Assessed Valuation of Property of Public Utility Corporations	130
XXII	1958 Assessed Valuation of Public Utilities by Counties	131
XXIII	Salaries of County Assessors	169-170

LIST OF TABLES

		Page
I	Types and Number of Joint (Inter-County) Taxing Districts, 1957	16
II	For Each County, Total Assessed Valuation of Agricultural Land and Per Cent That it is of the Total Assessed Valuation of Real Property	36
I	1958 Assessed Valuation of Agricultural Land by Classes	37
IV	Rural Land Value Calculation Irrigated Land	40
V	1958 Assessed Valuation of Extractive Land by Counties	55
VI	1958 Assessed Valuation of Extractive Land for State by Classes	56
VII	1958 Assessed Valuations of Situs Land by Counties	73
VIII	1958 Assessed Valuation of Situs Land for State by Classes	74
IX	Residential Land Depth Factors	76
X	1958 Assessed Valuation of Improvements by County	83
XI	1958 Assessed Valuation of Improvements for State by Classes	84
XII	Average Sales Ratio of Urban Improvements, by Counties, and by Classes	94-95
XIII	1958 Assessed Valuation of Personal Property by Classes	105
	Livestock	105-106
	Merchandise and Manufactures	106
	Other Personal Property	107
XIV	Relative Importance of Assessed Valuation of Personal Property	108
XV	Variations of 1958 Average Assessed Valuations from Recommended Minimum Average Valuations	112
XVI	Variation of County Average Valuations of Seven Classes of Livestock from Recommended Minimum Average Valuation	112
XVII	Comparison of Merchandise Assessments by Different Methods	119

I

THE HISTORY OF THE PROPERTY TAX IN COLORADO

From 1876 to 1947[1]

When Colorado became a state in 1876 its Constitution authorized the General Assembly to establish a uniform system of property taxation. It provided that all property, unless specifically exempted, was to be assessed at a just value. It provided for specific exemptions of: 1) personal property for each head of a family to the amount of $200; 2) ditches, canals and flumes used by the owners for irrigation; 3) mines and mining property for a period of ten years; 4) public property; and 5) property used solely for religious worship, for schools or for strictly charitable purposes, and cemeteries not used or held for private profit, unless provided by law.

The office of county assessor was created by the Constitution. It provided that the board of county commissioners should act as a county board of equalization to equalize valuations within each county. It created an ex officio state board of equalization consisting of the governor and four other elected state officials. It provided that valuations should be equalized at full cash value.

The General Assembly enacted laws to initiate the administration of the property tax. County assessors, elected for a term of two years, were given the responsibility of determining the valuation of all property, real and personal. These valuations were to be adjusted by a county board of equalization and the differences among counties were to be equalized by the state board of equalization.

"This administrative procedure was intended to insure assessment at full cash value of all property in each county of the state. However, in practice the procedure broke down. County assessors, always under pressure from property owners, began a competitive race with each other to underassess property in order to reduce, in each case, the county's share of taxes paid to the state government. Because the same economic pressures and interests were present when equalization was attempted by the county commissioners, no correction of the inequality as between counties was achieved on this level."[2]

Early Attempts at Equalization

The state board of equalization was confronted early with the responsibility of attempting to force county assessors to make full-value

---

1. The following history is summarized from Crockett, Earl C., Taxation in Colorado, 1947.
2. ibid, p. 13.

assessments in order to obtain equalization among the counties. As early as 1876 the state board detected property tax inequalities and ordered changes in assessments to the degree that the sum total of all county assessments was greater after the equalization than before. The question of constitutionality was raised, and in 1877 the court ruled that the board had no power to increase the aggregate valuation of the state.[3] The board, being composed of ex officio members, who had other duties, decided that nothing could be done. Consequently, nothing further was attempted toward state equalization for over twenty years.

The depression of the 1890's put a severe strain upon the tax structure, causing a shrinkage of revenue due to reduced valuations of property and to tax delinquency. County assessors became reluctant to raise valuation even after several years of economic recovery. At the same time governmental functions were expanding and the need for revenue was increasing. As a consequence, by 1898 the General Assembly found itself appropriating $472,555 in excess of tax receipts.

Finally, in 1899 the state board of equalization made another effort to equalize values. This time it changed the assessment of certain classes of property in the various counties. In an appeal made to the courts, the state supreme court affirmed its earlier decision and ruled that this type of equalization was likewise unconstitutional.[4]

Thoroughly discouraged in its efforts to equalize property valuations, the board adopted the following resolution: "Whereas every effort of the said Board of Equalization since its establishment has been invalidated by adjudication of the Supreme Court, therefore be it resolved, that in the judgment of this board the power of said board to equalize and adjust can only be made effective by constitutional amendment or by legislative enactment specifically designating its powers and directing the method of the performance thereof."[5] After this formal declaration assessments grew steadily worse from the standpoint of equality among the various counties.

Legislative Action

In 1900 Governor Thomas appointed a special revenue commission to study the problem and to make recommendations for tax reform. The commission's report led to the drafting and adoption of a new revenue bill in 1901. This new law amended the property tax by providing for the appointment of a state board of assessors to supervise and administer tax assessments.

Through the efforts of this board of assessors, the assessed valuation of the state was increased from $216 million in 1900 to $460 million in 1901. The assessed valuations of railroad corporations were increased $89 million. The latter corporations refused to pay the increased taxes and

---

3. People v. Lothrop, 3 Colo. 428 (1877).
4. People v. Ames, 27 Colo. 346 (1900).
5. Annual Report, Colorado Tax Commission, 1915, p. 9.

challenged the constitutionality of the new law. In December, 1901, the court ruled that the state board of assessors had no power under the State Constitution because county assessors had no authority outside their respective counties.[6]

At a special session of the General Assembly in January, 1902, a general revision of property tax statutes was adopted, many provisions of which have remained unchanged. The 1902 amendments attempted to strengthen the property tax by setting forth in detail a procedure for assessing property. All properties, not specifically exempted, were to be assessed annually at full, true cash value, by county assessors and their deputies; except that the properties of public utilities were to be assessed by the state board of equalization.

The first year after approval of the law (1903) the total assessed valuation of property in the state was $333 million. By 1912 it was $422 million. The 1912 valuation was still below that of the year 1901 in spite of drastic revisions in the law and even though actual wealth in the state had increased rapidly during the period.

The 1902 law had provided for an annual meeting of county assessors for the purpose of discussing common problems regarding assessments based upon full cash value. Yet the assessors in 1908 agreed among themselves to assess all property in the state at one-third of cash value.

Creation of Tax Commission

Other states were also encountering serious difficulties with their property tax systems. Many began adopting a more centralized type of assessment administration in an effort to correct some of the problems. The county assessors of Colorado, observing this development in other states, and realizing that guidance and supervision on the state level was needed if uniformity of property assessment was ever to prevail, began advocating the adoption of a law establishing a state tax commission for Colorado.

In 1911, the General Assembly created a state tax commission composed of three members appointed for six year terms.[7] In some respects this represented the beginning of a new era in property taxation. The commission was given broad powers to supervise the assessment of property, and to enforce laws relating to such assessment. In addition, the powers of the state board of equalization, except that of equalizing the assessments, were transferred to the tax commission, including the power of making original assessments of the property of public utility corporations.

The new tax commission increased the valuation of the state from $422,442,079 in 1912 to $1,306,647,430 in 1913. This resulted in local opposition. In 1915, authorities in Weld and Denver counties originated an

---

6. Union Pacific Railroad Company v. Alexander 113 F 347 (1901).
7. In 1918, by Constitutional Amendment, the three tax commissioners were given civil service status.

initiated measure to abolish the tax commission. The measure was defeated by a narrow margin. Since that threat to its existence, the tax commission "has never again been quite as energetic and aggressive."[8]

Equalization Action Since 1912

In 1912 a proposal was rejected by the electorate which would have abolished the state board of equalization and placed ultimate authority for equalization in the tax commission. It would have granted the tax commission the power to adjust the valuations on classes of property. Previously, the courts had denied that the board had such power under the Constitution.

In 1914, a constitutional amendment was adopted providing that the state board of equalization has the duty "to adjust, equalize, raise or lower the valuation of real and personal property of the several counties of the state, and the valuation of any item or items of the various classes of such property." Also, that the state board of equalization ... "shall equalize to the end that all taxable property in the state shall be assessed at its full cash value", and "that the state board of equalization shall have no power of original assessment."[9] This amendment was probably intended to bestow unlimited power of equalization upon the state board of equalization. However, because of the provision that the board shall have no power of original assessment, the courts have ruled that it cannot examine the valuation of an individual taxpayer's property, but must confine its attention to the equalization of valuations among aggregates and general classes of property.[10]

In 11 of the 33 years from 1914 to 1947, the state board of equalization took no action. It ordered decreases in the assessed valuations certified to it each year from 1915 through 1922, from 1924 through 1928, from 1930 through 1933, and in 1940; a total of 18 years. It ordered increases only six times, 1923, 1934, and 1936 through 1939, in spite of the fact that assessments had consistently been less than full cash value.

During the period 1915 to 1930 reductions were made in every year but five. Almost all of the reductions benefited the public utilities. From 1931 through 1933, the reductions were made primarily on agricultural land and improvements. Increases were ordered in five of the years from 1934 through 1939, the additional assessments being placed upon public utilities. The relatively small reduction of $119,620 ordered in 1940 was upon the property of rural electrification companies.

Both Jens P. Jensen in his "Survey of Colorado State Tax System" prepared in 1930 for the Denver Chamber of Commerce, and Professor Earl C. Crockett of the University of Colorado in his report "The Colorado Property Tax'

---

8. Crockett, Earl C., Taxation in Colorado, 1947, p. 20.
9. Colo. Const., Art. X, Sec. 15.
10. Boulder County v. Union Pacific RR Co., 89 Colo. 110, (1931); McGinnis v. Denver Land Co., 90 Colo. 72, (1931).

in 1947 recommended that the state board of equalization be abolished. No action has been taken as the result of either of these recommendations.

Exempting Certain Types of Property

In 1936, two classes of property upon which assessments had been extremely poor were removed from the tax base exemption.[11] These were intangible personal property, such as bank accounts, stocks and bonds, and motor vehicles.

Difficulty in discovering intangible personal property for assessment purposes, and inequities resulting from its assessment, led to the abandonment of the property tax as a means of taxing intangibles. The new state income tax was substituted in lieu of the property tax on intangibles in recognition of this inequity.

Difficulty in locating and assessing motor vehicles led to a specific ownership tax as a means of taxing them in lieu of the property tax. The specific ownership tax was required to be paid before the automobile could be registered and licensed, assuring the payment of the tax. The exemption of these two classes of property left a tax base which was more capable of being equitably assessed as a whole than before, and left the assessor more time to devote to the remaining tax base.

In spite of various reforms that had been accomplished, the level of the assessed valuation of all property in the state had become proportionately lower in relation to the estimated full cash value of such property. In 1947, Professor Crockett reported that despite an estimated increase of at least fifty per cent in actual value of property in the state from 1913 to 1941, the total assessed valuation of the state was less in 1941 than in 1913 by the amount of $179,466,627. Furthermore, despite the inflation in values during World War II, the 1946 valuation had increased only $132,520,611 above the 1913 valuation.[12]

Since 1947

Re-appraisal Program

By 1947, the situation had become so serious that the General Assembly appropriated $100,000 to the tax commission for the biennial period 1947-1949 "to defray costs and expenses of making a re-appraisal of the assessed valuation of the taxable property subject to the ad valorem tax..."[13]

With this appropriation began what will be referred to frequently

---

11. Colo. Const., Art. X, Sec. 6 and 17.
12. All of preceding history is summarized from Crockett, Earl C., Taxation in Colorado, 1947.
13. Laws, 1947, Ch. 111.

throughout this report as the re-appraisal program. A department of re-appraisal was established under the tax commission, headed by a director of re-appraisals. A staff was assembled as rapidly as possible and the work of planning and putting into effect a re-appraisal of all taxable real property in the state was undertaken. During the next five years, methods of appraisals were developed to achieve the goal of uniform assessments. An Assessor's Real Estate Appraisal Manual was assembled, published and distributed to the assessors. This manual gave county assessors: 1) a system of appraising buildings according to their cost of reproduction at the 1941 level of construction costs and adjusting such reproduction costs for losses of value resulting from age, wear and tear, obsolescence and economic conditions; 2) a system of appraising agricultural lands according to their productive capability; and 3) a system of appraising other lands.

County assessors employed additional help, field crews were organized, and field men from the tax commission instructed them in the new methods and supervised them in the work of re-appraising. All buildings in the state were measured, described on a uniform property card, classified, and appraised. An inventory and classification of all lands was made. This was the first complete inventory of the taxable real property which had been made in Colorado. As a result a large number of real properties which were not on the tax rolls were discovered and placed on the rolls.

Work continued in this manner for a period of five years. Progress was slow. Much planning was required to develop satisfactory methods. Recruiting and training of men was difficult. The actual task of appraisal was tremendous.

While this program was in progress, the process of making annual assessments in the old manner continued. No part of the re-appraisal was used in actual assessments during these years, except insofar as the greater knowledge acquired concerning properties resulted in an improvement in existing assessments. The assessed valuation of the state increased from $1,259,701,414 in 1946 to $1,733,575,141 in 1951. Most of this increase, of course, reflected the increased building activity in the state during those years; however, some of it was undoubtedly attributable to improved assessment methods.

The General Assembly, after making another appropriation of $113,824 for the biennial period 1949-1951, became impatient with the delay. Sufficient pressure was brought to bear upon the tax commission to induce that body to order that the re-appraisal would become effective in 1952. The work was in various stages of completion, but not fully complete in any county. A monumental effort was made to complete the program and use the new valuations for the 1952 assessments. Since, in many counties, it was not possible to complete the work, an expedient was adopted. The valuations of property which had not been re-appraised were increased arbitrarily by a percentage corresponding to the average amount of increase on properties which had been re-appraised.

The tax commission determined that the 1941 level of cost which was used in appraising property would be used as the standard of assessment.

Therefore, the new valuations were made on a 1941 cost level, rather than the 1952 level. The commission attempted to justify the use of the 1941 level and the designation of that level as representing true cash value in this manner. The inflation in costs which had occurred in the years subsequent to 1941 was regarded as abnormal and temporary. The 1941 level was regarded as representing a normal level of value. The 1941 level of value was, therefore, declared to be "true cash value."

With the use of the new appraisals, the valuation of the state increased from $1,733,575,141 in 1951 to $2,470,879,029 in 1952. Many properties were increased more in valuation than others. The greater valuations reflected equalization efforts on properties which formerly had been under-assessed. However, the owners of properties bearing the greater proportion of the increase became very vocal in their protests. Since many errors of appraisal were made in the final rush to complete the re-appraisal, some of the protests were found to be justified. The protests caused the General Assembly in 1953 to appoint a joint committee to investigate the situation. This committee conducted an investigation and recommended to the General Assembly that special provision be made for review of the 1952 assessments and adjustment of such inequities as might be found. The General Assembly enacted a law which extended the period during which taxpayers might petition for a review of their 1952 assessments without prejudice until May 1, 1953. And it extended to September, 1953, the period during which 1952 taxes might be abated or refunded on those assessments which were found to be inequitable.[14]

During the year 1953, the assessors received numerous requests for review, and had the time consuming task of making such reviews, and such adjustments as were found necessary. An abnormally large number of abatements and refunds of taxes were allowed, and many adjustments were made in assessed valuations in 1953.

Public Utility Assessments

Because of the fact that the re-appraisal was concerned primarily with the assessment of real property by the county assessors, protests were made that the re-appraisal was unfair to the owners of locally-assessed real property. The total assessed valuation of the state on such real property was increased by 58.6 per cent from 1951 to 1952, while the assessed valuation of public utility properties, assessed by the tax commission, was increased by 19.5 per cent. The tax commission had made no significant change in their assessment of public utility properties beyond the determination that assessment at fifty per cent of the value determined by it would achieve equalization of public utility assessments with local assessments. Because of the contention that public utilities assessments were not equalized with local assessments, a series of investigations of the assessment of public utilities were undertaken.

---

14. Laws 1953, Ch. 191.

During 1952, an advisory committee appointed at the request of the tax commission, composed of representatives from the Colorado Assessors' Association, the State Association of County Commissioners, the State Agricultural Planning Committee, the State Chamber of Commerce, and the Colorado Municipal League, devoted a limited amount of time to a study of public utility assessments, and issued a report in January, 1953. It reported that a detailed investigation of such assessments would involve considerable cost and many months of work by a full-time staff, and that therefore its report was limited in scope. Some criticisms were made of the methods used by the tax commission, the fact that the tax commission had inadequate staff to properly assess utilities was noted, no significant evidence of lack of equalization was presented, and a legislative study of the problem was recommended.

In 1953, the General Assembly, appropriated by House Bill No. 473 the sum of three thousand dollars to the tax commission "for the purpose of securing the services by said commission of a certified public accountant to assist it in reviewing and checking 1953 valuation statements now being filed with the commission in regard to assessments of property owned by public utilities throughout the state;"[15] and also appropriated by House Bill No. 474 the sum of three thousand dollars to the state board of equalization for the purpose of employing a competent examiner "for the purpose of reviewing, checking and making a thorough study of the re-appraisal program recently completed by the state tax commission and the assessments of property made thereunder, particularly as to the assessed valuation fixed under said program of property owned by public utilities throughout the state." [16]

The firm of Collins, Peabody and Masters, Certified Public Accountants, was employed by the tax commission under House Bill No. 473. They made an independent appraisal of fifty-seven of the companies assessed by the tax commission, using methods similar to, but not identical with those used by the tax commission, and recommended valuations which were somewhat higher than those made by the tax commission. If the appraisals recommended were accepted as the full cash value of the companies, the tax commission's assessments would have been about 45.3 per cent of full cash value.

A. G. Mott, Consulting Engineer, of Pebble Beach, California, was employed by the state board of equalization under House Bill No. 474. He made independent appraisals of four railroad companies and three electric and telephone companies whose combined assessed valuations represented seventy-five per cent of the total assessed valuations of all public utility corporations. He recommended appraisals, which if accepted as full-cash-value appraisals, would indicate that the assessed valuations made by the tax commission for 1953 were an average of forty-four per cent of full cash value.

---

15. Laws, 1953, Ch. 30.
16. Laws, 1953, Ch. 193.

Since, in 1953, it was generally accepted that assessments of real property made during the re-appraisal program were at not more than forty per cent of current market value, none of these reports indicated that the public utilities were under-assessed in relation to locally-assessed property. However, since none of these investigators applied the same type of appraisal to the properties of public utility corporations as had been applied to locally-assessed real property, the critics of tax commission assessments were not satisfied.

Further Efforts Toward Equalization

In spite of the progress achieved as the result of the re-appraisal program, equalization within and among the counties still had not been achieved. In 1954, the tax commission recommended an increase of $6,235,520 in the valuation of agricultural lands in one county, the state board of equalization approving the recommendation. In 1956, the tax commission recommended increases in the valuations of seven counties which had made blanket reductions of the assessed valuations of farm improvements. The state board of equalization declined to approve these recommendations. In 1958, the tax commission recommended an increase of $10,000,000 in the locally-assessed property of one county, and the state board of equalization approved the recommendation. The county involved appealed to district court and the state supreme court at the request of the Attorney General, assumed jurisdiction, and the matter is still pending at this time.

Exemption of Household Furnishings and Personal Effects

In 1956, a constitutional amendment was adopted authorizing the General Assembly to exempt household furnishings and personal effects which are not used at any time for the production of income. This exemption was made effective in 1957 by House Bill No. 4.[17] Thus, another part of the tax base which was extremely difficult to assess equitably was eliminated.

Legislative Council Assignment to Study Assessment Methods

The 1956 amendment to Section 3, Article X, of the Constitution, exempting household furnishings and personal effects, also amended the article cited to read that taxes "shall be ... assessed ... under general laws, which shall prescribe such methods and regulations as shall secure just and equalized valuations for assessment of taxes upon all property, real and personal, located within the territorial limits of the authority levying the tax;..." In response to this amendment the General Assembly, in 1957, provided for a sales-ratio study by adoption of the Realty Recording Act.[18] At the same time the General Assembly assigned to the Colorado Legislative Council the problem of studying methods of assessment in order to determine and recommend what legislative action could be taken to promote greater equalization of assessments.

---

17. C.R.S., 1953, Sec. 137-12-3.
18. C.R.S., 1953, Sec. 118-6-21 to 33.

II

THE NATURE OF THE PROPERTY TAX

The property tax is imposed upon property located within a taxing jurisdiction on the basis of the value of the property itself. For this reason, it is frequently referred to as the ad valorem tax. However, since there are other forms of ad valorem taxation, the term "property tax" will be used herein to designate this particular form of ad valorem tax.

By was of introduction to a consideration of the nature of the property tax and the many problems relating to it, there are set forth below, in brief, over-simplified form, the steps in its administration. These are the administrative steps followed in the determination of the amount of property tax that the owner of a property must pay.

Step 1. The county assessor places an assessed valuation on a property. An assessed valuation is a value assigned to a property to be used as a base for calculation of the tax. Many factors are taken into consideration by the assessor in determining the assessed valuation. For example, in determining the assessed valuation on a one-family home, the size of the house, type of construction, size of the lot, location, etc., are considered.

Step 2. After an assessed valuation has been assigned to all properties in a county, the county board of equalization reviews the results. The board looks to see that all properties are assessed at comparable valuations, and that all classes of property are assessed comparably. If inconsistencies are found, the board may adjust the assessed valuation of a property or a class of property either up or down to conform with the level of assessment for all property.

Step 3. The state tax commission reviews the assessments of each county in a similar manner. It recommends to the state board of equalization any adjustments that it feels are needed in the total assessed valuations of any counties in order to equalize the valuations among the counties.

Step 4. The state board of equalization reviews the assessed valuations of all counties, together with the recommendations made by the tax commission. If the assessed valuations of property in one county are at a lower level in relation to the true value of the property than the assessed valuations in other counties, the state board may order the valuation of that county raised to conform with the level in the other counties. The state board of equalization certifies to each county the total assessed valuation on which the tax levies are to be computed, determines the amount of the state tax levy, and certifies this levy to each of the counties.

Step 5. Each school district, each city, and each special district within a county, and the county government itself, determines the amount of money required from the property tax to operate each of the units of government during the next year, and certifies the amount to the county commissioners

The county commissioners, for each unit of government, divide the amount of money needed by the assessed valuation of all property within the unit's jurisdiction. The result is the mill levy for that unit, the rate of taxation which is applied to the assessed valuation to determine the amount of tax to be paid. For example, if the assessed valuation of the county is $50,000,000 and amount of money required for the county government is $500,000, a levy of ten mills would be set as the rate of taxation for the county government.

Step 6. All mill levies that apply to a particular property are consolidated into one total levy for that property. That is, the mill levies for the state, the county, and all other units of government in whose jurisdiction the property is situated are added together. The assessed valuation of the property is then multiplied by the total mill levy to determine the total tax that is to be paid by the owner of the property.

Step 7. The property owner pays the tax to the county treasurer, who distributes the amount paid to the several units of government participating in the tax.

Assessed Valuation

As stated above, assessed valuation is a value assigned to a property by the county assessor to be used as a base for the computation of taxes. The term "assessed valuation" is to be distinguished from the term "value." The latter term includes the former, but is not synonymous with it. Value, in general, means the worth of something. However, its exact meaning differs with the point of view of the person using it. It means one thing to a buyer, another to a seller, another to a banker accepting property as security for a loan, another to an insurance agent writing a policy of fire insurance, another to an owner enjoying the possession and use of property without thought of selling or mortgaging, and still another to the assessor assigning an assessed valuation for purposes of taxation.

Assessed valuation is different than a value determined from any other point of view. However, it is usually considered that assessed valuation should bear some relationship to what is known as full cash value or market value. The latter term is usually considered to mean that amount of money which will be paid for a property by an informed and willing buyer to an informed and willing seller, uninfluenced by urgency or an excessive need to buy or sell, and given a reasonable time for negotiation. Average market value, resulting from the sale of numerous similar properties, rather than the sale of a single property, is considered most desirable as guide to determination of assessed valuation.

Assessed valuation, although it is related to market value, is not market value. It may be one hundred per cent of market value (full cash value), or it may be any other portion of market value. It may be related to current market value, or it may be related to the market value of some past year or period of years.

Fundamental Principles of the Property Tax

There are certain fundamental principles which are inherent in the property tax, but which are not always understood by either the administrators of the tax or the taxpayers, and which are frequently not adhered to by administrators. These are:

1) The property tax is based upon the value of the property which is subject to the tax as represented by an assessed valuation assigned to it by an assessor.

2) The property tax is imposed upon property. Although the tax must be paid by a person, its amount is determined by the value of the property, and the tax liability attaches to and remains with the property, rather than the person. If the tax is not paid, the property can be sold, but no other remedy is asserted against the person who owns the property. Therefore, the assessor must assess property, not persons.

3) The property tax is not an income tax. It is, in no sense, based upon the ability of the owner of property to pay taxes. Insofar as income produced by the property itself influences the value of the property, that income may be considered in determining the assessed valuation of the property. However, some property is taxable which produces no income directly, and this fact does not cause it to have no value. Furthermore, the tax imposed upon property bears no relation to the total income of the owner. For instance, the income of a home owner is not determined by the value of the home in which he lives.

4) The amount of tax imposed upon property bears no relationship to the amount of service rendered by government directly to the property or its owner. Property is subject to some taxes because it, or its owner, is the recipient of a governmental service, such as fire protection, police protection, or access to public roads. But the amount of tax is not determined by the amount of service rendered to each property.

5) Assessed valuations should be determined without reference to revenue requirements. Assessed valuations should not be adjusted upward or downward because mill levies are high or low. Valuations should not be lowered in order to give tax preference to certain properties, either individual properties, or groups of properties. Valuations in a county should not be reduced for the purpose of giving its taxpayers an advantage over those at a neighboring county.

6) Assessed valuations should be equalized within the territorial limits of each governmental unit levying a tax. That is, the assessed valuations should be uniform upon all property with reference to its value, in order that each owner of property shall pay his just share of the tax.

Advantages and Disadvantages of the Property Tax

Because of some features of the property tax, it has come into considerable disrepute. It is not always equitably administered. Some classes of

property, because of their character, are able to escape bearing their full share of the tax burden. Increasing governmental costs have resulted in a great increase of the property tax burden to the extent that property owners feel that they are over-burdened in relation to persons owning little or no property. Property owners feel that they should not pay a large share of taxes for some purposes which provide services to people rather than to property as such.

These criticisms are all true in varying degrees. However, it can be said, in defense of the property tax, that it also has redeeming features. It has a greater degree of stability than any other form of taxation. The tax base can be provided by one administrative organization (the county government) for the use of all units of government, and collections can be handled by one administrative organization for the benefit of all units, so that each unit does not have to provide its own administration. The tax liability remains until paid, so that security for governmental borrowing in times of economic stress is provided by the procedure of registering warrants. It also provides acceptable security for borrowing for capital improvements through the floating of bond issues.

Most of the criticisms referred to above have been recognized and much has been done to counter them. The increasing burden of taxes upon property owners, as such, has been alleviated by the increased use of other forms of taxation for many purposes. While the property taxpayer's burden may have increased, it has not increased as much as, otherwise, it might have. Many classes of property, upon which an equitable property tax could not be effectively administered, have been exempted from property taxation, and, in some cases, subjected to other forms of taxation. Intangible personal property, motor vehicles, household furnishings and personal effects not productive of income have been exempted. At the same time, considerable progress has been made toward more equitable administration of the tax upon classes of property still subject to the property tax. However, there is much room for further improvement, and it is toward that goal that the balance of this report is directed.

III

NEED FOR STATE-WIDE EQUALIZATION

State-wide equalization of property tax assessments is a necessity for an equitable system of property taxation in the State of Colorado. Great emphasis must be placed upon this because of the widely-held misconception that assessing property is strictly an intra-county problem, that assessed valuations need only be equalized within each county.

What is meant by state-wide equalization? First, equalization means that the property of each taxpayer is assigned an assessed valuation which is either its true cash value or a consistent fraction of such value, so that when a taxing jurisdiction applies a mill levy to such valuation, each taxpayer pays his fair share of the property tax burden, no more and no less. Equalization is the process of adjusting assessed valuations so that the assessed valuation assigned to each property bears the same relationship to market value as that of every other property.

Equalization does not mean that each taxpayer should pay the same dollar amount in property taxes. Obviously, the owner of a property worth $10,000 should not pay the same amount of property tax as the owner of an adjacent property worth $20,000 in the same taxing jurisdiction. Instead, the owner of the property worth $10,000 should pay half as much tax as the owner of a property worth $20,000.

State-wide equalization means the extension of the process of equalization to include all the property in the state. Such equalization of assessed valuations must exist between each and every property, between each and every class of property, and between the property in each and every county in the state.

There are five basic reasons why assessing of property is an inter-county problem, and why assessed valuations must be equalized state-wide. First, the Constitution of the State of Colorado requires all property to be assessed at a uniform valuation. Second, the state levies a tax upon property. Third, the distribution of state school aid to local school districts is based upon the results of the assessing process. Fourth, there are ninety-three special districts in Colorado that embrace parts, or all, of two or more counties. Those districts depend on the property tax as the primary source of revenue. Fifth, a significant part of the assessed valuation of all property in the state is assessed on a relatively uniform basis regardless of the county in which the property is located.

The Constitutional Requirement of Equalization

The State Constitution in Article X, Section 3, as amended in 1956, provides that "All taxes...shall be levied, assessed, and collected under general laws, which shall prescribe such methods and regulations as shall secure just and equalized valuations for assessments of taxes upon all property, real and personal, located within the territorial limits of the authority levying the tax." (Emphasis supplied.)

Under the provisions of this section, the General Assembly has the duty to legislate toward the end of securing equalized valuations upon all property located within the jurisdiction of any governmental unit levying a tax, from the smallest cemetery district to the state itself.

The State Property Tax

The State of Colorado levied 3.56 mills on all taxable property in the state in 1957. The revenues from that levy, approximately $12 million, provided operating money for several state educational institutions and several state departments and also provided for buildings in numerous state institutions and departments. All property in the state must be assessed at a uniform level to provide an equitable distribution of this tax.

If the state property tax were eliminated, one of the reasons for state-wide equalization would be eliminated. The big problem connected with this proposal is finding another source of income to replace the $12 million the state is now collecting from the property tax. However, the elimination of the state property tax will not eliminate the necessity for state-wide equalization.

Distributing State School Aid

The property tax is the backbone of the revenue structure of the public school system. State aid to education was prompted by two things: 1) the necessity of guaranteeing each school age youngster equal opportunity to secure an education in those school districts not having sufficient resources from the property tax to provide that equal opportunity; and 2) an effort to relieve the property taxpayers in all school districts from some of the burden of educational costs by distributing revenue derived mainly from the income tax to local school districts.

A basic part of the present system of distributing state school aid is the requirement that each county levy a tax of 12 mills upon its assessed valuation. Therefore, equitable distribution of this particular tax requires that all property in the state must be assessed at a uniform level.

As long as the property tax remains as the major source of revenue for schools, and school districts are required to make an effort locally to support their school systems from the property tax, then it is doubtful that the property tax factor can be eliminated from the state school aid formula.

Inter-County Special Districts

Numerous joint districts have been created in Colorado for the performance of various governmental functions. Table I, below, shows the types of joint districts, the number in Colorado, the assessed valuations of the districts and the tax dollars collected from the taxpayers in these districts. Chart I, page 17, illustrates graphically the extent of the interlocking relationships of these districts.

TABLE I

Types and Number of Joint (Inter-County) Taxing Districts, 1957

Joint Districts	(A)	(B)	(C) Valuation	(D) Tax Revenue	(E) %	(F) Mills
School	53	44	$ 157,616,435	$2,474,371.60	1.5	15.70
Cities	1	2	46,207,358	577,591.98	0.4	12.50
Water Conservancy*	10	24	743,304,783	529,357.59	0.3	0.71
Water Conservation	2	18	388,796,300	72,330.40	0.1	0.18
Fire Protection	19	28	105,630,171	113,704.05	0.1	1.07
Sanitation	4	4	3,840,946	27,095.63	0.1	7.05
Cemetery	2	4	6,916,110	6,916.12	0.1	1.00
Recreation	1	2	8,675,590	34,528.85	0.1	3.98
Moffat Tunnel Impt.	1	9	731,566,703	731,566.71	0.4	1.00
Total for Joint Districts	93	51	$2,192,554,396	$4,567,462.93	2.8	2.08

(A) Number of districts
(B) Number of counties involved, in all or in part
(C) Amount of assessed valuation within districts
(D) Amount of taxes levied by districts
(E) Percentage of total property tax revenue for all purposes
(F) Average mill levy

* A new water conservancy district organized in 1958 increases the total number of districts to 94, the number of counties involved to 53.

Each district is composed of all, or part, of two or more counties and levies a tax on all the taxable property within its boundaries regardless of county lines. The water conservancy, water conservation, and Moffat Tunnel Improvement districts are more extensive, including all or part of several counties. The Colorado River Water Conservation District includes all or part of thirteen counties, and the Moffat Tunnel Improvement District includes all or part of nine counties.

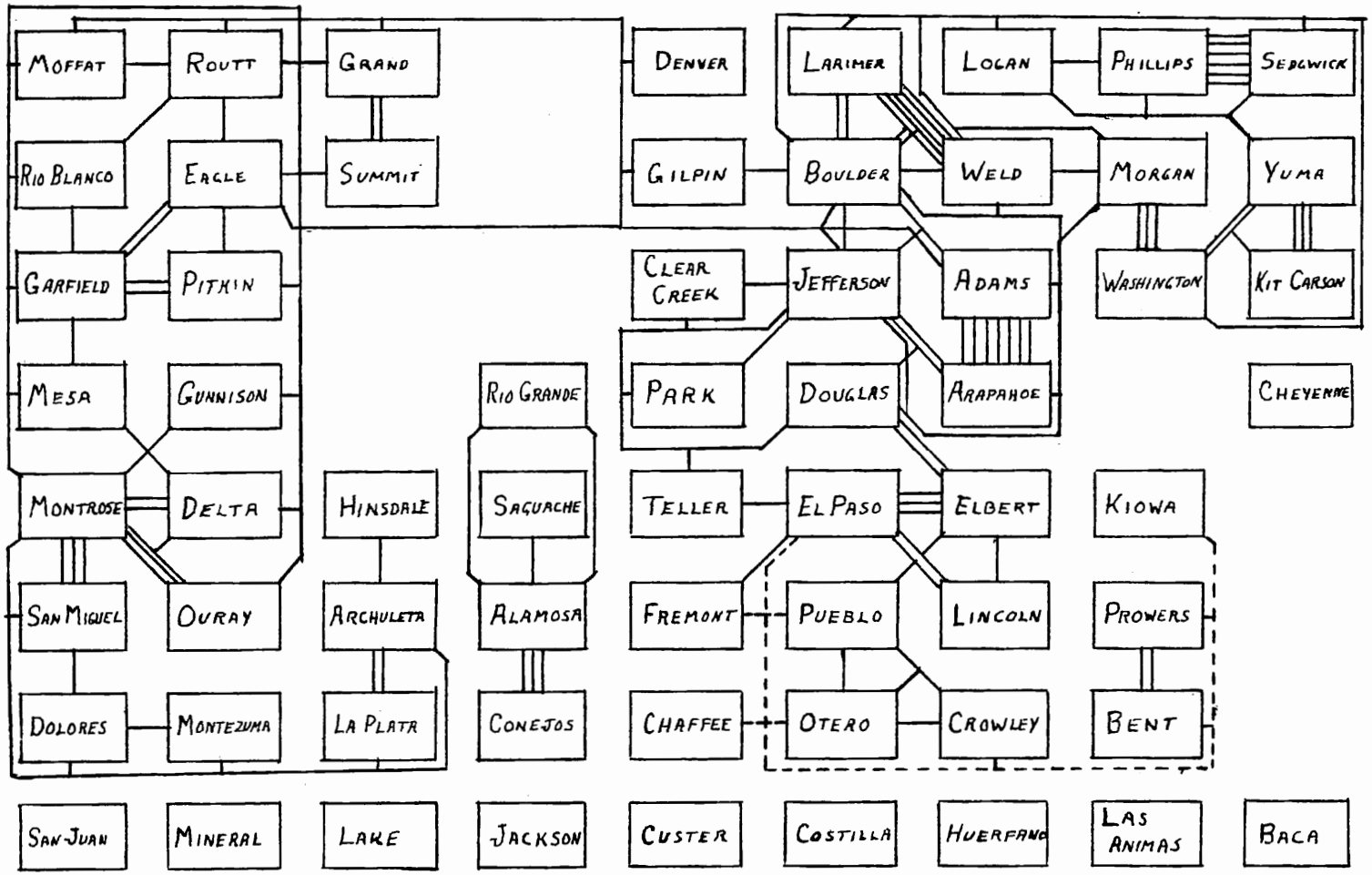
To illustrate the extent of these joint districts, only twelve counties in the state have no joint levies. Two counties are subject to eleven different joint district levies. The average number per county is 5.7.

Assessed valuations must be equalized within each of the ninety-three joint districts which now exist. In order for this to be accomplished, the assessed valuations within each county which forms a part of a given district must be equalized, one county with another. Consequently, the assessed valuations in the great majority of counties of the state must be equalized at a uniform level.

The primary requirement that valuations within each county must be equalized prevents the use of piece-meal equalization of joint district valuations.

CHART NO. I

JOINT TAXING DISTRICT CONNECTIONS AMONG COUNTIES IN COLORADO



EACH LINE REPRESENTS A JOINT DISTRICT: — BETWEEN TWO COUNTIES; ⟍ AMONG THREE COUNTIES; ✕ AMONG FOUR COUNTIES; ⌐¬ AMONG SEVERAL COUNTIES. THE BROKEN LINE REPRESENTS A NEW WATER CONSERVANCY DISTRICT ORGANIZED IN 1958. ALL OTHERS EXISTED IN 1957.

A given county cannot equalize a portion of its assessed valuation at one level with a neighboring county to the east because of a joint school district, at another level with a neighbor to the north because of a fire protection district, at another level with a neighbor to the west because of a water conservancy district, at another level with a neighbor to the south because of a sanitation district, and at still another level in those portions of the county that are within no joint district.

The joint-district factor in equalization cannot, like the state and public school levies, be side-stepped. This complex of districts is too firmly established to be eliminated or even reduced. It is actually becoming more extensive and more complex each year. The reorganization of school districts, now in progress, may reduce the number of joint school districts through consolidation, but is likely to add more territory to that already within joint school districts. New water conservancy districts, usually inter-county in extent, are being formed each year. Other types of special improvement districts are being formed in large numbers, some of them invariably extending beyond the limits of a single county.

The question is sometimes raised as to whether these joint levies are sufficiently large to be of great concern to the taxpayer. It is argued that the main concern should be the equalization of valuations within each county, as a separate entity, without concern for the effect of joint levies. While some of the joint levies are very small and considerable property in the state is not subject to any joint-district levies, the cumulative effect on a large part of the property in the state is substantial. The following illustrations demonstrate the importance of this problem.

County "A" assesses property at 50 per cent of full cash value and County"B" assesses property at 25 per cent of full cash value. Take two properties in each county of equal value. One property is a $20,000 residence, and the other is a farm worth $100,000.

In County "A", the $20,000 home is assessed at $10,000, and the farm at $50,000. In County "B", the $20,000 home is assessed at $5,000, and the farm at $25,000. The relative tax burden for the two types of properties in each county is shown in the table below. The mill levies are identical since the properties are located in the same three joint districts, although in different counties.

Home Worth $20,000

		County "A"		County "B"		
Tax	Mill Levy	Assessed Valuation	Amt. of Tax In Dollars	Assessed Valuation	Amt. of Tax In Dollars	Difference
Joint Sch.	15.70	$10,000	$157.00	$5,000	$78.50	$78.50
Fire Prot.	1.07		10.70		5.35	5.35
Water Cons.	1.50		15.00		7.50	7.50
Total	18.27		$182.70		$91.35	$91.35

		Farm Worth $100,000				
		County "A"		County "B"		
Tax	Levy	Assessed Valuation	Amt. of Tax In Dollars	Assessed Valuation	Amt. of Tax In Dollars	Difference
Joint Sch.	15.70	$50,000	$785.00	$25,000	$392.50	$392.50
Fire Prot.	1.07		53.50		26.75	26.75
Water Cons.	1.50		75.00		37.50	37.50
Total	18.27		$913.50		$456.75	$456.75

The homeowner in County "A", living in the same joint districts as his counterpart in County "B", is paying twice as much in property taxes to the joint districts, despite the fact their homes are of equal cash value. The same is true for the farmer in County "A".

Need for Equalization Among Classes of Property

The 1958 sales ratio study[1] indicates there is considerable variation in the assessment levels of most real property which is assessed by county assessors. However, there are several other classes of property which are assessed at a comparatively uniform level throughout the state, in spite of the lack of uniformity in assessments on real property. They are:

1) Public utility property, such as railroads, telephone and telegraph companies and electric power companies, which are assessed by the tax commission on a uniform basis for each company, without regard to location. While the valuation of such a company is distributed among the counties in which it has property according to one of several statutory formulas, which may have no relationship to the value of the property actually present in each county, the proportion of assessed valuation distributed to each county is not adjusted to the level of assessment maintained by the county assessor on other real property.

2) Producing metal mines which are assessed according to a statutory formula, the assessed valuation being based on the preceding year's value of mine, or to the local level of assessments on other real property. Producing oil and gas wells are assessed according to a similar formula agreed upon by the assessors concerned and the tax commission.

3) Stocks of merchandise which, by tax commission policy, are assessed at 50 per cent of their average wholesale value. While it cannot be said that all stocks of merchandise are assessed uniformly, such lack of uniformity

---

1. See Colorado Legislative Council Research Publication No. 27, Sales Ratio Study, Part One.

as exists is due to varying degrees of efficiency in determining the average wholesale value of the merchandise, rather than to variations in local assessment policy.

4) All classes of livestock which, with very few exceptions, are assessed at a uniform valuation per head according to class as recommended by the tax commission. The resulting valuations are not adjusted from county to county to conform to levels of assessment of other locally assessed property.

Because of the comparative uniformity of assessments on these particular classes of property, equalization of assessed valuations, even within the boundaries of one county, cannot be achieved without state-wide equalization of assessments among all classes of property. This point may be illustrated by taking the classes of property within one county and examining the results of a change in the level of assessment for locally assessed real property, and the consequent shift of tax burden among these classes of property.

The assessed valuation of a hypothetical county is made up as follows:

	Assessed Valuation	
Classes of Property	Real Property Assessed at 30%	Real Property Assessed at 20%
Public Utility Property	$ 2,000,000	$ 2,000,000
Producing Mines	3,000,000	3,000,000
Livestock	900,000	900,000
Merchandise	1,100,000	1,100,000
Other Real Property	30,000,000	20,000,000
	$37,000,000	$27,000,000

For simplicity, it is assumed that there are no other classes of property in the county than those listed. In the first column under "assessed valuation", are shown the assessed valuations of the various classes of property when assessments of locally-assessed real property, other than producing mines, are at an average of 30% of market value. In the second column are shown the assessed valuations after the assessments of real property are reduced to an average of 20% of market value. Note that this change of assessment policy has produced a reduction of $10,000,000 in the total assessed valuation of the county without affecting the assessed valuations of the first four classes of property.

The various tax levies and the amount of taxes levied, in each case, is as follows:

Purpose of Tax	Real Property Assessed at 30% Mill Levy	30% Taxes in Dollars	20% Mill Levy	20% Taxes in Dollars
State	3.56	$ 131,720	3.56	$ 96,120
County Public School Fund	12.00	444,000	12.00	324,000
County	10.00	370,000	13.70	369,900
Schools, Special Fund	20.00	740,000	27.40	739,800
Total	45.56	$1,685,720	56.66	$1,529,820

For purposes of this illustration, it is assumed that there is in this county a single school district, and levies of towns, cities and special districts, which apply to only a portion of the valuation are omitted. Note that the state levy which is established by the state board of equalization and the county public school fund levy which is set by statute remain unchanged, producing a smaller amount of tax dollars with a lower total valuation. Since the county and special school fund levies are set to raise specified sums of money, the mill levies are increased to produce approximately the same amount of tax dollars on a lower tax base.

On the basis of the assessed valuations shown in the preceding paragraph and the taxes levied, each of the groups of taxpayers would, in each case, pay the following proportion of the total tax burden:

Class of Property	Real Property Assessed at 30% Taxes in Dollars	30% Proportion of Total Tax Bill	20% Taxes in Dollars	20% Proportion of Total Tax Bill
Public Utilities	$ 91,120	5.4%	$ 113,320	7.4%
Producing Mines	136,680	8.1	169,980	11.1
Livestock	41,004	2.4	50,994	3.3
Merchandise	50,116	3.0	62,326	4.1
Other Real Property	1,366,800	81.1	1,133,200	74.1
Totals	$1,685,720	100.0	$1,529,820	100.0

Note that the owners of other real property, receiving a reduction of one-third in assessed valuation, would, in consequency, benefit by a decrease in tax burden in the amount of $233,600. On the other hand, the owners of the other four classes of property, having no change in assessed valuation, would, nevertheless, pay 24 per cent more in taxes, an additional $78,000. The total tax burden in the county was decreased by $155,900, but only the owners of real property benefited from such reduction, while the burden of the others was increased.

Of the total decrease of $155,900 in taxes, $35,600 represents the loss to the state from the state levy of 3.56 mills resulting from the decrease of total assessed valuation of the county. Of course, if there were a

significant decrease in the total assessed valuation of the state, the state mill levy would be increased, but the $10,000,000 decrease in this county, by itself, would have no affect on the state levy. The remaining reduction of $120,000 is lost to the county public school fund, and must be made up by an increased amount of state aid for education. Since the General Assembly appropriates the amount of money necessary to pay the state aid, this places a ceiling on the total amount of state aid for the entire state. Distribution of a greater amount to this county means that other counties will receive less.

Conclusions

1) The State Constitution requires that the General Assembly prescribe by law methods of assessment that will secure just and equalized assessments throughout the state and within the jurisdiction of each unit of government levying a tax.

2) The complex inter-relation of units of government which levy taxes makes it essential that equalization of assessed valuations be on a state-wide basis, as well as within each individual county.

3) All factors which contribute to the need for state-wide equalization cannot be eliminated.

4) State-wide equalization cannot be accomplished merely by cooperation among county assessors.

5) Adjustment of levies to compensate for lack of equalization among counties, sometimes suggested as a solution, will not solve the over-all problem of equalization, because of the need for equalization among classes of property within each county.

IV

METHODS OF ASSESSMENT OF PROPERTY IN GENERAL

Property, Taxable and Exempt

The first problem encountered in the assessment of property is that of determining what property is taxable and, therefore, subject to assessment. Property may be defined as anything which is owned, anything of value of which a person, partnership, association, company or corporation has the right of possession and use. Anything which is property and which is not specifically exempted from taxation by law is taxable.

Property has been exempted from taxation by the Constitution and laws of the United States, and the Constitution and statutes of the State of Colorado. Such exemptions fall into three main types: (1) those which are based upon the ownership of the property; (2) those which are based upon the nature of the property; and (3) those which are based upon the use of the property.

Exemptions based upon the ownership of the property. Generally, all property owned by the federal government is exempt. This exemption rests upon the Constitution and laws of the United States. In the case of Colorado, it is reaffirmed in the Enabling Act which authorized the People of Colorado to write a Constitution and create a state government. Section 4 of the Enabling Act provides "that no taxes shall be imposed by the state on lands or property therein belonging to, or which may hereafter be purchased by the United States." This principle is so firmly established that no reference is made to it in either the Constitution or statutes of the State of Colorado.

Other exemptions based upon ownership are: property owned by the state, counties, cities, towns, school districts, other municipal corporations and public libraries;[1] and personal property of banks.[2] Property belonging to county fair associations is, in effect, exempt from taxation. There is no specific exemption of this property by law, and no basis for such exemption in the Constitution. However, the law[3] provides that any taxes imposed upon such property shall be abated or refunded each year.

---

1. State Cons., Art. X, Sec. 4.
2. Authorized by State Cons., Art. X, Sec. 17; implemented by C.R.S., 1953, Sec. 138-1-6; Sec. 38-1-23.
3. C.R.S., 1953, Sec. 137-12-6.

Exemptions based upon the nature of the property include household furnishings and personal effects which are not used for the production of income at any time;[4] intangible personal property;[5] and motor vehicles, trailers, and semi-trailers, except those "in process of manufacture, or held in storage, or which constitute the stock of manufacturers, or distributors thereof or of dealers therein".[6]

Household furnishings, by statutory definition, include "personal property in residential buildings and structures, except fixtures". Personal effects include "such tangible personal property as is, or may be, worn or carried on or about the person, and such articles as are usually associated with the person". The term "fixtures", as used in the definition of household furnishings "includes those articles, which although once movable chattels, have become an accessory to and a part of real estate by having been physically annexed or affixed thereto."[7]

Intangible personal property, defined as including "rights, credits, franchises, special privileges and special advantages attendant upon or derivable from contract rights having a value of themselves for the purpose of income or sale, or in connection with other property",[8] were exempted from property taxation with the adoption of the state income tax. One exception to this exemption is that it shall not "be construed to repeal, or in any way affect, the use or inclusion of intangible property as a factor in arriving at the valuation of public utility property assessed by the tax commission."[9]

Exemptions based upon the use of property include property, real and personal, used "solely and exclusively" for religious worship, for schools, other than schools held or conducted for private or corporate profit, and for "strictly charitable purposes", and cemeteries not used or held for private or corporate profit.[10]

Exemptions based upon nature, ownership and use of property. The law provides that ditches, canals and flumes owned and used by individuals or corporations for irrigating land owned by such individuals or corporations, or the individual members thereof, shall not be separately taxed as long as they shall be owned and used exclusively for such purposes.[11]

---

4. Authorized by State Cons., Art. X, Sec. 3; implemented by C.R.S., 1953, Sec. 137-12-3.
5. Authorized by State Cons., Art. X, Sec. 17; implemented by C.R.S., 1953, Sec. 138-1-48, and 137-12-3.
6. State Cons., Art. X, Sec. 6.
7. C.R.S., 1953, Sec. 137-12-2.
8. C.R.S., 1953, Sec. 137-12-2.
9. C.R.S., 1953, Sec. 138-1-48.
10. State Cons., Art. X, Sec. 5; C.R.S., 1953, Sec. 137-12-3.
11. State Cons., Art. X, Sec. 3.

Partial or temporary exemptions. A residence, and the land upon which it is erected, owned by a church or synagogue organization, while used solely and exclusively as a residence by a minister, preacher, priest or rabbi actually serving the organization as such is exempt to the extent of an assessed valuation of six thousand dollars.[12]

"The increase in value of private lands caused by the planting of trees shall not be taken into account in valuing such lands for taxation for a period of thirty years from the date of planting unless prior to the expiration of thirty years, any of such trees shall become sufficiently mature as to be of economic use."[13]

Classification of Property for Taxation

The assessment of property is a complex problem because the property which is assessed is so varied in nature. Different types of property, by their nature, require different methods of assessment. Therefore, the first step in assessing property, or in studying the assessment of property, is to classify the property according to the characteristics which determine the methods which are to be used. For this purpose the law classifies property into the two broad classes of real estate, including land and improvements on land, and personal property, and recognizes the separate assessment as a class of property, the property, both real and personal, belonging to public utility corporations.

The tax commission is authorized by law to classify property for purposes of assessment within these broad categories. The commission, in 1958, prescribed eighty-eight different classifications: twenty-two classifications of land, eight of improvements, forty-five of personal property, and thirteen of public utilities. For the purpose of discussing methods of assessment in ensuing chapters, property has been divided into the following broad classes, somewhat different than the classifications prescribed by the tax commission, each of which constitutes a separate problem in assessment methods: 1) agricultural land, 2) extractive land, 3) situs land, 4) improvements, 5) personal property, and 6) public utilities.

The first three are land classifications based upon the type of use from which value is derived. Agricultural land is that land which is used for the production of agricultural products or the grazing of livestock, or is held principally for such use, and which derives its value from its capability for producing agricultural products or grazing of livestock. Extractive land is that land, including mineral interests, which derives its value from the extraction or removal of an irreplaceable portion of the land itself, or a product of the land, such as timber, which requires many years for replacement. Situs land includes all land which is neither

---

12. C.R.S., 1953, Sec. 137-12-4.
13. C.R.S., 1953, Sec. 137-12-5.

agricultural nor extractive. It derives its value from the use of its surface as the site for buildings not agricultural or extractive in use, or as the site of a non-agricultural or non-extractive activity, such as commercial, industrial, residential, or recreational.

Improvements on land consists mainly of buildings erected upon the land.

Personal property is a broad class consisting of all property not included in the classes of land or improvements, and characterized primarily by mobility. This class, for purposes of discussing assessment methods, is divided into the sub-classes of livestock, merchandise and manufactures, and all other personal property.

The class of public utilities, such as railroads, electric power companies, telephone and telegraph companies, car line companies, airlines, and pipe line companies, includes land, improvements and personal property of the utility companies.

Standard of Assessment

A problem which relates to the assessment of all taxable property is that of the standard of assessment which should be used. More specifically, should assessments be based upon: 1) full value; 2) a prescribed fraction of full value; 3) the level of value existing in a specific year or years; or 4) a fraction of such level? Should such standard of assessment be prescribed by the Constitution, prescribed by statute, or left to administrative determination?

Constitutional Provision. The State Constitution requires that "the state board of equalization and the county board of equalization shall equalize to the end that all taxable property in the state shall be assessed at its full cash value."[14] (Emphasis supplied)

Statutory Provision. The statutes of Colorado adhere to the "full cash value" standard prescribed by the constitution. They require the county assessor to subscribe, in person, to the statement that he has assessed the taxable property in his county "at the true and full cash value thereof."[15] They require the tax commission to "exercise supervision over the county assessors" and others "to the end that all assessment of property real, personal, and mixed, be made relatively just and uniform and at its true and full cash value" and to require them "to assess all property of every kind or character at its actual and full cash value."[16] The "full cash value" requirement is repeated with reference to the duties of the tax commission

---

14. State Cons., Art. X, Sec. 15.
15. C.R.S. 1953, Sec. 137-3-40.
16. C.R.S. 1953, Sec. 137-6-12.

in reporting to the state board of equalization and the duties of the state board of equalization in equalizing the assessment of the state.[17]

The law states that "In determining the true value of taxable property, except as otherwise provided in this chapter, the market value shall be the guide. As to all classes or items of property in respect to which it cannot be fairly said to have a market value, the price it would bring at a fair voluntary sale thereof, the value of the use thereof, and the capability of use, together with any other just method of determination, may be considered by the assessor. In determining the value of taxable property in this state of corporations, foreign and domestic, the value of the capital stock and bonds of each corporation shall be received and considered, and shall be competent evidence of the value of the entire plant of such corporation, but any and all other evidence of the full and true cash value of said property, both tangible and intangible, shall be received and considered in arriving at the value of the entire plant of such corporation."[18]

"If there is no market value of the stock, then what it would bring at a fair voluntary sale, the value of the use of the property and the capability of use shall be considered, with other evidence. If neither of the foregoing methods are applicable to any given profit producing unit, corporate plant or property, then the cost of duplication or other just means, may be resorted to."[18] It also states that this section shall not apply to "mines or mining claims bearing gold, silver, lead, copper or other precious metals and possessory rights therein, but the same shall be assessed under the provisions of Article 5 of this chapter whether the same shall be owned by a corporation or not."[18]

In summation the law provides: 1) that property shall be assessed at its full cash value or true value; 2) that market value shall be the guide to true value; and 3) that in the absence of a determinable market value, the value of use, the capability of use or any other just method of determination may be considered.

Tax Commission Policy. Although the constitution requires assessment at "full cash value", which would seem to mean full market value, the tax commission has not insisted on assessing property at market value. Not since 1913, when the assessment was presumably at full market value, has the assessment level been at full market value.

The present policy of the tax commission, determined in 1951, is that the 1941 cost level represents "true cash value". The 1941 level was referred to as a normal level of values. Inflation of values which has occurred since 1941 was considered abnormal and temporary. Therefore, the 1941 level has represented true cash value, if not current market value, under tax commission policy since 1951.

---

17. C.R.S. 1953, Sec. 137-6-31, 137-7-5.
18. C.R.S. 1953, Sec. 137-3-17.

In accordance with this policy, the tax commission has ordered the appraisal of buildings upon the basis of 1941 costs of construction. It has ordered that machinery and equipment, when subjected to a detailed appraisal, be appraised upon the cost of similar machinery and equipment in 1941, the actual cost at a subsequent date being adjusted to the 1941 level. It has ordered the assessment of agricultural land on the basis of average value during the ten-year period from 1934 to 1943, inclusive, which was designated as the 1941 level for that class of property. In general, the tax commission recommendations concerning the assessment of other classes of property have been designed to produce valuations at approximately the 1941 level.

To this date, neither the state board of equalization nor the courts have ordered the tax commission or the assessors to increase valuations to current market values. However, the courts in Colorado have never ruled specifically upon the question of what constitutes full cash value. Generally, the courts have dealt only with the authority of the tax commission to order assessors to increase valuations. In such cases, plaintiffs usually sought a reduction in valuations on the ground that the tax commission did not have such authority. The court has usually ruled that the tax commission has such authority, and that "it is the express duty of the commission to see that all property is uniformly assessed at its actual and full cash value".[19] But there has been no ruling defining the meaning of "full cash value". The court has not ruled on the correctness of the assessed valuation, but only upon the authority of the tax commission to order a change.

No one has ever brought a case to the Colorado Supreme Court seeking to have his valuation increased because it wasn't assessed at "full cash value". Perhaps, this is the reason that no court has ruled that assessments were below full cash value and that they should be increased to that standard.

Assessment Practice. Neither in policy, nor in actual assessment practice, is the 1941 level of assessment adhered to strictly. Agricultural land is assessed on the basis of a ten-year average of values, 1934 to 1943, inclusive. Extractive land, if producing, is assessed on the basis of its production during the preceding year; if not producing, at the discretion of the individual assessor, usually without reference to any given standard of assessment. Other lands are assessed at from five to forty per cent of current market value. Improvements are assessed on the basis of the 1941 cost of construction. The various classes of personal property are assessed

---

19. Citizens' Comm. for Fair Property Taxation v. Warner, 127 Colo. 121, 254 P. 2d. 1005 (1953).

at varying percentages of original cost or current value, ranging from 65% downward. Public utility properties are assessed at 40% of the "full value" determined by the tax commission. The standards in use for each of the classifications will be examined in greater detail in the chapters relating to their assessment.

The current sales ratio study[20] shows considerable variation, from property to property, from class to class, and from county to county, in the relationship between current assessed valuations and current market values. The 1957 assessed valuations of real property are shown to be at an average, state-wide, of 27.9 per cent of the average market value of such real property as determined by conveyances of real property recorded between July 1, 1957 and June 30, 1958. The average ratio of assessed valuations to sales considerations in individual counties ranges from a low of 14.1 per cent to a high of 40.9 per cent. The average ratio of urban residential property is shown to be 28.1 per cent, of all urban property 29.5 per cent, and of rural property 24.3 per cent.

Standard in Other States. In considering what should be established as the standard of assessment, it is well to note the experience of other states. Most states, as Colorado, have the full cash value requirement, but do not adhere to it in practice.

There have been several court decisions in other states relating to this problem in recent years. In 1958 the Supreme Court of Idaho[21] ruled that "the criterion or method used in fixing cash value exclusively at replacement cost of improvements based on an index of years 1937 to 1941, less depreciation, is erroneous and not authorized by law" and "replacement cost at a fixed time, less allowed depreciation, would not in itself determine the cash value, market value, or full cash value." In new Jersey[22] and in Connecticut[23] the courts held invalid assessments made at less than the full value prescribed in those states.

Six states have adopted specified fractions of full value as standards of assessments: South Dakota, 60%; Nebraska, 35%; Arkansas, 18% to 20%; Alabama, 60%; Iowa, 60%; and Washington, 50%.

In Alabama the law requires property to be assessed at 60 per cent of its fair and reasonable market value. The most recent sales ratio study made by the Alabama Department of Revenue reveals the median sales ratio for the state to be 20 per cent. The state is presently engaged in an equalization

---

20. Colorado Legislative Council Research Publication No. 27, Part I, Sales Ratio Report for 1957.
21. R. M. Farmer v. State Tax Commission, 5 ICR 135.
22. Switz v. Middletown Township, ANL, April, 1957.
23. Ingraham Co. v. City of Bristol, ANL, June, 1957.

program using as a base the values of property in the year 1940, determined to be the "fair and reasonable market value." After the assessments have been equalized on the basis of the value of 1940, "it will then be a matter of increasing all assessments percentage-wise to an amount reflecting 60 per cent of the fair and reasonable market value."[24]

In the State of Nebraska, until 1953, "the office of the Tax Commissioner operated under a law requiring assessment of all real and tangible personal property at actual value." In actual practice, the assessment level "was probably at not more than 20 per cent of actual value." In 1953 the state supreme court ruled that the law required assessment at 100 per cent of actual value. The legislature then passed a law "requiring assessments at 50 per cent of actual value." Since efforts at equalization resulted in "an average assessment of something approaching 35 per cent of actual value," in 1957, the legislature changed the requirement to "35 per cent of actual value." "Equalization of real property at the 35 per cent level has improved rapidly and they are convinced that few states can show a better record of equalization."[25]

In South Dakota, the legal assessment standard for the state is 60 per cent of the "true and full value" as established by the assessors. Ratio studies have shown actual assessment to be at 48 per cent of recorded sales. Efforts are being continued to achieve the legal standard.[26]

From these illustrations it can be seen readily that Colorado is not alone in being plagued with this problem, and that the problem has not been completely solved anywhere.

Alternative Standards of Assessment

Possible standards of assessment are: 1) full cash value (current market value); 2) a prescribed percentage of full cash value; 3) the level of value prevailing in a given year; or 4) a prescribed percentage of the level of value prevailing in a given year.

The present constitutional standard is that property be assessed at full cash value. Therefore, the legal standard cannot be anything else without a constitutional amendment. The use of the term "assessed at" precludes the possibility of enacting a statute providing that property be "valued at full cash value and assessed at" some portion thereof. "Full cash value" by any reasonable interpretation means current market value. Therefore, it appears that nothing can be done to change the legal standard of assessment except by constitutional amendment.

---

24. Letter to Legislative Council dated March 20, 1958 from Chief of Ad Valorem Tax Division, State Department of Revenue, State of Alabama.
25. Letter to Legislative Council dated March 10, 1958, from State Tax Commissioner, State of Nebraska.
26. Letter to Legislative Council dated February 27, 1958, from Department of Revenue, State of South Dakota.

The arguments for use of actual full cash value, meaning average current market value, as a standard of assessment are as follows:

1) Current values are more realistic for assessment purposes than are historic ones. Taxpayers can understand and verify current values more easily. The use of current values for assessment makes possible easy comparison of assessed valuations between individual properties, between classes of property, and between counties or other taxing districts with the use of current sales information.

2) With a current value basis of assessment, the achievement of the goal of equalization could be more nearly accomplished. Equalization represents uniform assessment of property with reference to its present value. Therefore, it is easier to place a correct valuation on property with use of current values, than with use of values of a year that is long past.

3) Use of a full current value would benefit some taxing jurisdictions which are now hampered by an inadequate tax base. Assessments at low levels have, by administrative action, placed a limitation on levying and bonding powers, which was not intended by law. Some taxing jurisdictions, at present, feel compelled to hold their valuations at a higher level than others because of these limitations. In doing so, they are penalized for assessments at a higher level than in other jurisdictions. An increase in the level of assessment in all counties would solve this problem, while making equalization possible.

The arguments used in opposition to the use of full cash value assessments are as follows:

1) Increases in the level of assessment would cause an increase of the tax load because the mill levies would not be decreased proportionately.

2) Use of current value assessments based upon average market value would result in complaints from taxpayers who, for one reason or another, purchased property for less than what was determined to be the average market value. These complaints would be hard to deal with because the taxpayer would have documentary evidence that he had paid less than the assessed valuation for the property.

3) Use of current value assessments would be extremely difficult administratively because of the annual adjustments of valuations which might be required, and because there would be a time-lag. It would not be possible to determine the market value for the current year in time to use it for making assessments for the current year.

4) Constant adjustments of assessments resulting from the use of current values would create confusion among the taxpayers.

5) Taxpayers and assessing officials would likely resist an increase from the present levels of assessment to full value.

Some of the arguments against use of full cash value assessments could be overcome:

1) If adequate limitations were provided to prevent an undue increase of tax levies, so that an increase in levels of assessment would not, of itself, increase the total tax burden.

2) If the procedure of comparing a property with similar properties were used in reviewing complaints resulting from individual purchases of property for less than assessed valuation.

3) If use of market values determined for the preceding year or two years preceding were used in making assessments and in judging equalization. This would allow for the time-lag needed for administration of assessments on this standard.

4) If adjustments of the level of assessment were permitted to be made periodically, every four or five years, instead of annually.

5) If sufficient time were permitted for the administrative task of changing from present levels of assessment to the new.

6) If a reasonable margin of variation from the standard were permitted. This would allow for the fact that it would be nearly impossible to assess at exactly full cash value, or to determine exactly that assessments are made at full cash value. A five per cent margin of permissable variation either way would probably be sufficient.

Prescribed Percentage of Full Value. Some of the arguments against using full cash value as the standard of assessment would be overcome, if, instead, a percentage of full value were prescribed as the standard. This would be especially true if the percentage selected were approximately the present average sales ratio. However, this would amount to continued circumvention of the requirements of the constitution, unless the Constitution itself were amended. And it would prevent some of the benefits which can be derived from full cash value assessment. In any event, average market value would have to be determined in order for a percentage of it to be used.

Base Year Standard of Assessment. The other alternative is to continue the use of the present practice of assessing on the basis of a base year, such as 1941. Little can be said for the continuance of this practice except that it would require no great increase in the level of assessment.

Much can be said against it. Equalization with reference to the present value of property cannot be achieved with use of a static assessment base. Values are rarely static. Furthermore, the relative values of one property to another do not remain constant with the passage of time. One property increases or decreases in value more rapidly than another. One class of property changes in value more rapidly than another. Value relationships of one area to another do not remain constant. The items of cost involved in construction of buildings vary at different rates.

With the passage of time, it becomes increasingly difficult to determine what the 1941 level of values was for any particular property or class of property.

Building materials which have been developed since 1941, and new types of machinery and equipment cannot be said to have a 1941 level of cost that can be truly determined. If so, the current cost is likely to be less than the 1941 cost on many such things.

It is difficult for the taxpayer to judge whether he is receiving equitable treatment. He probably does not know what the 1941 level of cost was. He is likely to believe that his property is under-assessed because his assessed valuation is a small part of what he knows his property to be worth. The actual situation may be that his property is over-assessed in relation to a similar property.

The adjustment of assessed valuations determined upon the basis of values prevailing in a given base year, in the interests of equalization, to reflect loss of value because of local or regional economic conditions, loss of utility, or various types of obsolescence, becomes very difficult. Such adjustments can be made only with reference to variations in current market value. And it becomes impossible to determine what percentage of current market value truly represents the 1941 level of value. This procedure tends to deteriorate into the mere adjustment of assessed valuations to an average level with reference to current market value, probably an ever-decreasing average.

Findings and Conclusions.

1) The constitutional standard of assessment at full cash value should not be changed.

2) Legislative action should be taken to insure the adoption of full cash value assessments in actual practice within a reasonable length of time by the imposition of penalties upon the tax commission for failure to enforce the full cash value standard, as well as upon assessors for failure to adhere to the standard.

3) Adequate limitations on tax levies should be provided for by law and no levy in excess of statutory limitations should be permitted without a vote of the taxpayers upon whom the levy is to be imposed.

4) The study of current real estate sales, as inaugurated by the Realty Recording Act,[27] should be continued as a means of determining average market value and of testing compliance with the full cash value standard of assessment.

5) Testing of assessed valuations by the latest sales information available should be permitted in recognition of the fact that completely current sales statistics cannot be maintained.

---

27. C.R.S. 1953, Sec. 188-6-21 to 33.

6) Adjustment of existing assessed valuations should not be required until a mal-adjustment in excess of five per cent from average market value is determined to exist.

7) Methods of assessment should be developed which are designed to produce assessed valuations which are as nearly as possible at the average market value of property which is subject to the predominant economic conditions existing in the state.

8) Means of determining average market value of classes of property other than real property should be developed and used.

V

THE ASSESSMENT OF AGRICULTURAL LAND

Agricultural land, for assessment purposes may be defined as that class of land which derives value primarily from its use in the production of agricultural products or the grazing of livestock. It includes by far the greatest number of acres of taxable land in the state. Of the 38,097,693 acres of taxable land,[1] 37,177,920 acres,[2] or 97.6 per cent, are assessed as agricultural.

In terms of assessed valuation, the total valuation of all lands assessed as agricultural is $285,549,525, which is 35.5 per cent of the total valuation of all classes of taxable land in the state. It constitutes 8.7 per cent of the total valuation of all taxable property in the state. Although the valuation on this class of land represents only 12.3 per cent of the total valuation of real property (land and improvements) in the state, its relative significance is greater than this percentage indicates because it is of greater importance in so many of the state's sixty-three counties. Table II on page 36 illustrates the relative importance of agricultural land valuations in comparison with the total valuation of real property for each county, arranged in order of relative importance. Table III shows the 1958 assessed valuation of agricultural land in the state by classes as reported to the state tax commission.

The assessment of agricultural land in Colorado is very difficult, and the equalization of such valuations is even more difficult, because of the great variety of agricultural lands in the state, not only among counties but also within a great many of the counties. None of the factors which influence the value of agricultural land are uniform throughout the state. There are wide variations in terrain, soil characteristics, rainfall, availability of water for irrigation, elevation, latitude, and convenience to market, all of which influence, in one way or another, the types of crops that can be grown, the yield of such crops, the annual cost of operation, and therefore, the income-producing capability of the land.

Constitutional and Statutory Provisions

There are no statutory provisions relating specifically to the determination of the assessed valuation of agricultural land except that

---

1. Public Land Ownership in Colorado, 1944, prepared by State Planning Commission and Colorado Water Conservation Board. Although this acreage determination is not current, it is the most recent one available and probably has not changed greatly since 1944.
2. Compiled from Abstracts of Assessment, 1958, from the 63 County Assessors.

TABLE II

Showing, for Each County, the Total Assessed Valuation of Agricultural Land and the Per Cent That it is of the Total Assessed Valuation of Real Property

County	Assessed Valuation	Per Cent	County	Assessed Valuation	Per Cent
Kiowa	$ 5,615,420	67%	Ouray	$ 867,175	30%
Saguache	4,835,020	64	Alamosa	2,610,750	29
Baca	7,518,590	62	Garfield	4,166,820	29
Cheyenne	5,605,450	62	Montezuma	2,663,910	27
Yuma	10,347,760	62	Logan	11,133,605	26
Conejos	3,880,170	60	Moffat	2,945,825	25
Elbert	4,506,630	60	Otero	5,926,030	24
Bent	5,148,200	59	Montrose	4,131,045	23
Kit Carson	8,588,130	59	Grand	1,516,855	22
Phillips	7,380,225	58	Morgan	10,185,060	21
Lincoln	6,689,880	58	Larimer	11,089,460	16
Crowley	2,657,075	57	Mineral	142,475	16
Sedgwick	5,313,620	55	Hinsdale	138,140	14
Custer	1,246,524	53	Mesa	7,195,550	14
Costilla	1,742,485	52	Pitkin	838,670	14
Prowers	8,910,050	49	Chaffee	1,061,080	13
Archuleta	1,329,357	48	La Plata	2,753,060	12
Routt	6,036,950	47	Adams	9,091,060	9
Dolores	1,635,765	45	Boulder	8,318,790	9
Rio Grande	5,685,399	42	Fremont	1,595,000	9
Weld	37,693,810	39	Teller	382,200	9
Washington	13,129,840	38	Summit	256,425	8
Las Animas	6,248,090	36	Gilpin	117,220	6
Park	1,897,960	35	Pueblo	4,723,105	4
Douglas	2,294,050	34	Clear Creek	135,520	3
Eagle	1,916,285	33	El Paso	3,523,680	3
Jackson	1,593,987	32	Jefferson	4,092,790	3
San Miguel	1,559,770	32	Rio Blanco	2,163,535	3
Huerfano	1,763,890	31	Arapahoe	2,391,030	2
Delta	3,971,530	30	Lake	118,120	- 1
Gunnison	2,532,170	30	San Juan	1,458	- 1
City and County of Denver			no agricultural land		

Note: Compiled from the Abstracts of Assessment, 1958, from the 63 county assessors.

TABLE III

1958 Assessed Valuation of Agricultural Land[3] by Classes as Reported to the State Tax Commission

Class	No. of Acres	% of Total Agric. Land	Average Valuation per acre	Assessed Valuation	% of Total Agric. Land Valuation
Irrigated Land	2,068,521.92	5.6%	$57.82	$119,602,168	41.9%
Meadow & Irrigated Pasture Land	527,647.88	1.4	21.47	11,328,732	3.9
Dry Farm Land	8,607,504.81	23.1	10.17	87,570,992	30.7
Grazing Land	24,098,606.61	64.8	2.67	64,445,641	22.6
Arid, Waste, Seep & Restoration Land	1,841,084.47	5.0	1.03	1,894,277	0.7
Miscellaneous	34,554.00	0.1	20.48	707,715	0.2
Total Agricultural	37,177,919.69	100.0%	$ 7.68	$285,549,525	100.0%

"agricultural lands shall be valued as a unit with the improvements and water rights located upon them".[4] Since this particular requirement relates to the assessment of both agricultural land and improvements thereon, it will be treated as a separate problem.

Tax Commission Policy

The official policy of the Colorado Tax Commission for the assessment of agricultural land is set forth in Section C of the Assessors' Real Estate Appraisal Manual. Basically, that policy calls for capitalizing

3. Compiled from Abstracts of Assessment for 1958 from the 63 county assessors. Since there are some differences between the classification of agricultural land as used in this chapter and those as used in the abstracts of assessment, the total valuation for agricultural lands shown here will not be the same as the total for those classifications designated as "farm lands" in the abstracts as it will probably appear in the 1958 Annual Report of the Colorado Tax Commission. The abstract classification of "Suburban Tracts" under the heading of "Farm Lands" has not been included. The item designated as "Miscellaneous" in the above table is taken from the abstract classification "Other Land Not Classified" in the abstract of Costilla County, as this particular acreage is known to be agricultural.
4. C.R.S., 1953, Sec. 137-12-9.

the average net income that was produced over a ten-year period on a typical farm unit under average management. The average net income is to be determined for each class of land within homogeneous areas. The valuation per acre determined by capitalizing this net income is used in a process of mass appraisal of all land in each class. The ten-year period prescribed for averaging net income is the years 1934 to 1943, inclusive.

If this policy were strictly adhered to in the actual appraisal of agricultural land for purposes of taxation, the procedures outlined below, and illustrated in Table IV, would be followed.

1) Advisory Committee. The county assessor would select an advisory committee of representative land owners of his county, having first-hand knowledge of the agricultural land in the county, to assist him.

2) Land-Use Map. A land-use map of the county would be drawn showing the land that is used for each of the following purposes: dry farming, special crops; dry farming, diversified crops; irrigated, special crops; irrigated, diversified crops; grazing land; and meadow hay land.

3) Type-of-farming Areas. With land use as a guide, the advisory committee would designate the geographic boundaries of areas having similar types of agricultural operations, and within which lands of similar character could be expected to yield approximately the same income under average management.

4) Key Farms. Within each type-of-farming area, "key" farms would be selected which are typical of the area with respect to types of soil and other physical operating conditions. These farms would be selected without regard to the individual managerial ability of their operators.

5) Land Classification. The land on each "key" farm would be classified according to its use and production capability. When available, Soil Conservation Service Land Capability classifications would be used. When such classifications were not available, some other basis of capability classification would be used.

6) Acre Yield. Average acre yields for the ten-year period would be determined for each crop grown on each land capability class under normal management, normal conditions and current farming practices generally followed throughout the type of farming area.

7) Gross Yield. The average annual gross yield of each crop for each land class would be determined for the "key" farm under consideration by multiplying the number of acres of each land class devoted to each crop by the average acre yield.

8) Gross Income. The average annual gross income derived from each crop for each land class would be determined by multiplying the gross yield by the ten-year average field price received for each crop. Local field

prices would be used because of the varying costs of marketing crops from different areas.

9) Net Available for Capitalization. The net available for capitalization is the percentage of gross income which is normally realized as net income. It would be determined for each area from consideration of average costs of production with relation to average gross income.

10) Net Income. The net income realized from each crop for each land class would be determined by multiplying the gross income by the net percentage. Then the net incomes for all crops in each land class would be added together to determine a total net income for each land class. The total net income for each land class would be divided by the number of acres of each land class devoted to crops to determine a net income per acre for each land class.

11) Capitalization. The net income per acre for each land class would be capitalized at 5% to determine a value per acre for land of each land class. For example, an acre of crop land that produced $10 net income would be valued at $200. ($10 divided by .05 or multiplied by 20). This would be the average value per acre of the land during the ten-year period, 1934 to 1943, inclusive. Since this period has been prescribed as the base period for the assessment of agricultural land, corresponding to the 1941 base year prescribed for the assessment of other property, this value per acre would become the assessed valuation per acre to be used throughout the area for all land of the class under consideration.

12) Mass Appraisal of All Agricultural Land in Area. All of the agricultural land in the area would then be classified according to use and land capability. The number of acres of each class of land in each farm unit would be determined. In doing this, aerial photographs of the land and Soil Conservation Service Land Capability Maps would be used, when available. If such maps were not available, the committee would classify all of the land by comparison with the land on the "key" farms.

The valuations per acre previously determined for each land class would then be applied to the number of acres of each class to produce a valuation for all land of each class in the unit, and the products for all classes would be added to determine the total valuation of all the agricultural land in the unit.

Separate valuations per acre would be determined for irrigated farm land, for dry farm land, for meadow hay land, and for fruit and vegetable tracts, in this manner. Valuations per acre for grazing lands would be determined in a similar manner. The land would be classified on the basis of animal carrying capacity and the value determination would be based upon the normal rental value per head of livestock.

TABLE IV[5]

RURAL LAND VALUE CALCULATION IRRIGATED LAND

Using: Average commodity prices, 1934 to 1943; net available for Capitalization - 10%; and rate of capitalization - 5%

ACREAGE VALUE COMPUTATION BY LAND CLASS - TYPICAL OPERATOR - TYPICAL CROP PATTE

CLASS I

CROPS	TYPICAL CROP PATTERN	YIELD	UNIT PRICE	GROSS INCOME	NET
Alfalfa	40 Acres	3 T.	$9.00	$1080	$108
Beets	20 Acres	18 T.	6.25	2250	225
Corn	40 Acres	70 Bu.	.77	2156	215
Beans	20 Acres	2000 Lbs.	3.59	1436	144
Barley	40 Acres	60 Bu.	.55	1320	132
Total Acres	160		Total Net Income		$824

Net $824 ÷ 160 acres equals $5.15 net income per acre
$5.15 capitalized at 5% equals valuation of $103 per acre

CLASS II

Alfalfa	40 Acres	2½ T.	$9.00	$ 900	$ 90
Beets	20 Acres	16 T.	6.25	2000	200
Corn	40 Acres	60 Bu.	.77	1848	184
Beans	20 Acres	1500 Lbs.	3.59	1077	107
Barley	40 Acres	50 Bu.	.55	1100	110
Total Acres	160		Total Net Income		$691

Net $691 ÷ 160 acres equals $4.32 net income per acre
$4.32 capitalized at 5% equals valuation of $ 86 per acre

CLASS III

Alfalfa	40 Acres	2 T.	$9.00	$ 720	$ 72
Beets	20 Acres	12 T.	6.25	1500	150
Corn	40 Acres	40 Bu.	.77	1232	123
Beans	20 Acres	800 Lbs.	3.59	574	57
Barley	40 Acres	40 Bu.	.55	880	88
Total Acres	160		Total Net Income		$490

Net $490 ÷ 160 acres equals $3.06 net income per acre
$3.06 capitalized at 5% equals valuation of $ 61 per acre

CLASS IV

Alfalfa	40 Acres	1½ T.	$9.00	$ 540	$ 54
Beets	20 Acres	8 T.	6.25	1000	100
Corn	40 Acres	25 Bu.	.77	700	77
Beans	20 Acres	400 Lbs.	3.59	287	28
Barley	40 Acres	25 Bu.	.55	550	55
Total Acres	160		Total Net Income		$314

Net $314 ÷ 160 acres equals $1.96 net income per acre.
$1.96 capitalized at 5% equals valuation of $ 39 per acre

---

5. Adapted from Assessors' Real Estate Appraisal Manual, p. C14 (1955).

This method of appraising agricultural land was developed during the re-appraisal program, beginning in 1947, and was first applied to assessments in 1952. It is the result of a cooperative effort headed by the Re-appraisal Division of the Colorado Tax Commission. The State Agricultural Planning Committee, the Agricultural Extension Service, and the Department of Agricultural Economy of Colorado State University acted in advisory capacities on all phases of the program. Numerous other agencies were consulted on special phases. This cooperative nature of the method would be duplicated at the county level, where, ideally, the county agricultural agent, the county agricultural planning committee, the special advisory committee, and a tax commission consultant assessor would assist and advise the county assessor in determining valuations and applying them.

As a method of appraisal it has much to recommend it. It recognizes the local nature of the problem of appraising agricultural lands and allows for local variations in agricultural conditions. It recognizes that, in the final analysis, the value of an agricultural unit depends upon the amount of income that can be derived from it. It makes use of scientific and statistical data which may be available, as well as of informed opinion. It allows for taxpayer participation. By the use of a ten-year average, it avoids excessively high or low values which might result from the use of a single year. By its emphasis on average management, it avoids penalizing good management or rewarding poor management. It is applicable to mass appraisal such as is required in assessing all of the agricultural land in the state, where it would be physically impossible to make a detailed individual appraisal of each operating unit. And it seems simple enough to be capable of use by assessing personnel.

However, the results achieved by this method can be only as good as the efficiency of its application and the accuracy of the data used. Good results require accurate information concerning crop yields, commodity prices, land classifications and operating costs. Uniformly good results require uniform application of the method. In actual practice, the application of this method has left much to be desired.

Actual Practice

The actual appraisal of agricultural land in all counties has strayed in varying degrees from the prescribed method outlined above. After careful investigation, it can be said that in no county in the state has the method been applied exactly as prescribed.[6] In at least seven counties, no re-appraisal of agricultural land has been completed, even though the project was undertaken state-wide prior to 1952 and was supposed to have been effective with the 1952 assessment. The policy of tax commission personnel in supervising the appraisal of agricultural land actually has strayed from the

---

6. The City and County of Denver can be excepted from this statement, since it has no agricultural land.

prescribed method in some respects.

However, before making specific criticsm of what has or has not been done, it is only fair to all concerned to mention that many conditions beyond the control of those participating in the program have made it impossible to comply strictly with the prescribed policy. Furthermore, there is little doubt that, in general, the present assessed valuations on agricultural lands are much better than those which were in effect prior to the reappraisal. It can be said that in many counties a reasonably good job of appraisals has been done, in view of existing circumstances.

Crop-yield Information. A very important factor in successful appraisal by this method is the use of accurate crop-yield information. Therefore, the availability of such information is essential to good results. The only statistics concerning crop yields which were available for use in the reappraisal program were the Colorado Agricultural Statistics which are published annually by the Colorado Department of Agriculture. The value of these for use in appraising the land is limited by the fact that they are compiled on a county-wide basis, giving the total and average yields of each crop for each county. Therefore, their direct use in determining average yields for different areas within the county, or for different classes of land is impossible. Furthermore, the yields per acre are shown for harvested acres, rather than planted acres. They have been useful, however, as a point of reference.

In the absence of crop statistics for each separate area, a substitute measure was adopted. A consensus of opinion was obtained from among the local farm operators, who served on the county advisory committees, concerning the normal average crop yield during the base ten-year period. In some cases, this opinion may have been based upon actual crop records kept by members of the committee. In most cases, however, it tended to be merely the opinion of what the average yield would likely be. In some cases, such consensus of opinion was probably very nearly correct. In others, it may have been quite wrong.

The committee members probably did not recollect very clearly the crop-yield history of the prescribed ten-year period in many cases. In some counties, those who participated now believe they were unconsciously influenced by pride in their years of better yields, or by prospects of improved yields, to overstate the normal yield. This possibility is borne out by an apparently higher level of valuation in these counties. In other cases they appear to have been influenced unconsciously by their memory of drouth, or by their knowledge that the information was to be used for purposes of determining assessed valuation, to be overly conservative in their opinions. It is not believed, however, that there was any deliberate collusion among the committee members to obtain low assessed valuations by understating yields. Whatever the results, it appears that the men who served on advisory committees were very sincere in their desire to perform a worthwhile service. The main weakness demonstrated was the lack of adequate crop-yield records in the form in which they were needed, and committee members provided the best information available.

Crop Prices. Since the local field prices for each crop in each county can be obtained from the Colorado Agricultural Statistics, it seems that this portion of the required data was sufficiently accurate. And since the variation in price from one area to another within a county is usually small, those field prices should be adequate for use in this type of appraisal.

Costs of Operation. Records of costs of operation during the prescribed ten-year period were not available to the appraisers, nor have they been available to those studying assessment methods. Again, improvisation in the appraisal process was necessary, with reliance on the opinions of advisory committee members. It could not be determined during this study whether actual differences in cost of operation from one area to another were adequately recognized.

The problem of evaluating the quality of the appraisal work done on agricultural land has been complicated by the fact that it has been impossible to learn what crop yields and costs of operation were used in value computations in any but a few of the sixty-three counties. No records of the value computations were kept either at the office of the tax commission, at the office of the county assessor, or by the advisory committees. Usually, the only records kept were the results--a schedule of assessed valuations per acre to be used for each class of land in each area in the county. Therefore, it has been impossible to verify that the valuations in use were correctly determined by verifying each step in computation.

Land Classification. In setting up the appraisal method, it was determined that the best land classification available was that of the Soil Conservation Service. Unfortunately, at the time the re-appraisal was undertaken, the land classification information that was available for use was, in general, very fragmentary in nature. Only a small part of the total acreage of the state had been classified in detail by the Soil Conservation Service. Where reasonably complete classifications were available for a county, or for an area within a county, they proved to be very helpful to the appraisers. In many counties, where only partial classification surveys had been made, these proved helpful for classification of land by comparison.

Because of the difficulty encountered in attempting to use a uniform method of land classification, and because of the difficulty of getting basic crop-yield data by class of land, in practice, the policy of determining land valuations specifically for each class of land was abandoned. Instead, valuations were determined for what was deemed to be average land in each area. Higher and lower valuations were arbitrarily assigned to good and poor land.

Since an accurate determination of acreages of land by classes and uses is essential to good appraisal, and since the use of aerial photographs of the land is essential to such determination, the possession and use of such photographs is an important element in successful appraisal. It has been determined that only twenty-three county assessors possess aerial photographs. In eighteen other counties, photographs are available to the assessor

in other governmental offices, but not always at the county seat. It is definitely known that twenty-one counties neither purchased aerial photographs nor had the use of any. Furthermore, some of those photographs in use have become obsolete and should be replace.

Use of 1934-1943 Base Period. As with the assessment of all classes of property, the adherence to a base period of value as a standard of assessment is not conducive to the maintenance of equalized assessed valuations. In the case of agricultural land, the base period used was the ten-year period from 1934 to 1943, inclusive. This period was selected partly because crop statistics were available for that particular ten-year period on a county-wide basis. They were not available for later years because of war-time interruption of the publication of crop statistics. It was also believed that, for agricultural land, this ten-year period was representative of the 1941 level of values.

With the passage of time, there is not necessarily a static comparative relationship of agricultural land values among the many separate agricultural areas in the state, nor is there a static comparative relationship between the values of agricultural lands, and those of other classes of property. During the inflationary trend that has followed the year 1941, agricultural land values may have increased more or less than those of other classes of property. In addition, the base period is now so far in the past that, in the absence of adequate historical data, it is extremely difficult to make appraisals based on values of that period.

Accomplishment by Counties. One indication of the degree of effectiveness of this method to date is what has been accomplished since its development. In 1953, one year after the re-appraisal became effective, according to a tax commission publication of land valuations which were to be used in each county, the following had been accomplished:

1) No valuations were published for sixteen counties, indicating that nothing had been accomplished in these counties. Denver County, which has no agricultural land, and San Juan County, which has only 364 acres of grazing land privately owned are included in these 16 counties.

2) For six counties, the only valuations published were standardized valuations for meadow hay and grazing land designed for state-wide use, to be applied on the basis of tonnage yield and animal carrying capacity, respectively, indicating that no actual field work had been done in these counties.

3) For forty-one counties, a schedule of valuations was published:

a) fourteen of which included the standard meadow hay and grazing valuations, all other valuations having been developed specifically for each county;

b) five of which included standard meadow hay valuations, with specific valuations on other classes;

c) eight of which included standard grazing land valuations with specific valuations on other classes;

d) two of which included valuations for irrigated farm land only;

e) and twelve of which included a complete schedule of valuations designed specifically for each county, area by area.

All county assessors have been visited at their offices at least once, at which time the schedule of land valuations actually in use in each county was obtained, and compared with the schedules published in 1953. Records were inspected to verify the use of the schedule. A statement was obtained from the assessor concerning how the land was appraised in his county. The problem was also discussed with many agricultural people throughout the state, and their views concerning the current valuation of agricultural lands were obtained.

In general, the following conclusions can be stated about the current situation. In two counties a superior job of appraisal appears to have been accomplished, judging by the methods used. Very effective use was made of the method prescribed by the tax commission, adapted to local circumstances. Very extensive use was made of advisory committees whose members worked hard and did a thorough job of appraisal, making a very careful and comprehensive classification of land. The valuations determined by the prescribed formula were followed closely. The committees are still functioning, meeting annually to review agricultural land assessments and to recommend adjustments, on occasion, and to consider all requests for adjustment which have been received from land owners. The assessors and county commissioners of these two counties make no adjustments of this class of assessments except on committee recommendation.

Thirteen other counties have apparently done a reasonably good job of appraisal, though not as outstanding as the two referred to above.

Sixteen other counties have made a conscientious effort to do a thorough appraisal and have achieved fairly good results. However, in general, they did not have very effective use of committees, they did not adhere strictly to scheduled valuations, and classification of lands were not as thorough as should have been.

Nine other counties have rather unsatisfactory appraisals, with ineffective or no use of committees, failure to reclassify lands, inadequate records of what was done, and indications of valuations being seriously out of line with those of neighboring counties.

At least fourteen counties have either done nothing on re-appraisal of agricultural lands, or have done so poorly as to make it desirable that a complete re-appraisal be done.

Two counties still use the appraisal system previously in effect in their counties, which the assessors feel produce satisfactory results, but

the schedule of valuations used is not one developed and approved by the tax commission.

In another county, the assessor determined the valuations himself, without tax commission consultation, using a different formula than that prescribed. The resulting valuations are noticeably out of line with those in adjoining counties.

In another, the assessor, with intensive committee participation, developed a divergent classification system, rating land at a percentage of the value of the best land in the county, and setting the level of valuation by comparison with similar land in an adjoining county which had done a thorough job of appraisal. It is not intended to be critical of this procedure except that it is not in conformity with tax commission policy.

In another county, committees classified the land in detail and then determined an average valuation per acre for each farm unit. On the property card only this average valuation for each unit is entered, making it extremely difficult, if not impossible, to even determine whether the proper schedule of valuations has been used.

In another county, the local committee decided, the assessor accepting the decision, that six per cent should be used as the rate of capitalization, rather than five per cent, thereby producing a lower level of valuation.

In several counties, a flat valuation per acre is used county-wide for all grazing land, and another flat valuation per acre for all meadow hay land, without regard for the variations in carrying capacity or productivity.

In another county, nearly five per cent of the land assessed as agricultural land is classified as miscellaneous land. This land is in small tracts, each of which contains some irrigated farm land, some meadow hay land, some irrigated pasture land, and some waste land. The land in these tracts has not been classified, but is assessed at a uniform valuation per acre for all land in each tract.

If it were the purpose of this report to assess blame for faulty assessments on an individual basis and to follow up with direct corrective action in each and every county, a detailed report could be made of what has been learned in each of the sixty-three counties. However, such actions are of an administrative nature, rather than legislative. The foregoing analysis should be sufficient to support the following conclusions: 1) there is a great lack of uniformity in methods used in the appraisal of agricultural land among the sixty-three counties; 2) there is a great variation in the degree of efficiency of appraisal from county to county; and 3) while theoretically the prescribed method of appraisal is good, in its application it has fallen short of its objective because of lack of adequate information and thorough ineffective administration.

Comparisons of Assessed Valuations. In addition to an analysis of methods of appraisal actually used, certain comparisons of the assessed

valuations in effect must be made in order to evaluate the degree of equalization that has been achieved. It is possible that in some counties the appraisal of agricultural lands might be judged to be good in terms of application of the prescribed methods, and satisfactory equalization possibly has been achieved for the agricultural land classes within the county. However, the resulting valuations might be comparatively high or low, due to some undetected fault in application, such as the use of inaccurate crop data, or due to changes in value of the land since the base period which was used. On the other hand, some counties, in which there was poor compliance with the prescribed method, might be found to have a satisfactory level of assessments when compared with others.

The sales-ratio study provides one comparison of assessed valuation to sales value for those agricultural units which were sold during the one-year period from July 1, 1957 to June 30, 1958, inclusive.

In the development of the sales ratios for agricultural lands great care was taken to isolate the problem. Only those sales which were considered to be true sales of agricultural lands, as such, and which provided a true comparison of sales consideration and assessed valuation, were used. All sales of rural land were scrutinized to determine whether they should be considered for use. As a result of this attention, the following types of sales were not used in determining the sales ratio of agricultural lands:

1) sales between relatives;

2) sales having any element of foreclosure or compulsion;

3) sales of land for right-of-way;

4) sales of tax title;

5) sales of land when the exact assessed valuation for the land sold could not be determined;

6) sales where the consideration included payment for anything except real estate--personal property, grazing permits, leases of public land, growing crops, etc-- and the consideration paid for real estate only could not be determined; and

7) sales where the purchaser bought for a use other than agricultural--residential, commercial or industrial sites, pleasure resorts, or suburban development.

All assessed valuations reported on agricultural land sales were verified by inspection of the records of the county assessor, and all sales considerations were verified insofar as such verification was possible. By correspondence with purchasers, and by inspection of records in the office of the county clerk and recorder, it was determined whether any obligation was assumed in connection with the purchase which was not stated in the consideration. In the same manner, it was determined whether anything purchased other than the described land and improvements on it was included in the stated consideration. If such was found to be the case and no value of the non-realty items could be determined, the sale was not used in determining

the sales ratio. If no satisfactory answer could be obtained the sale was not used.

The average state-wide sales ratio for agricultural land as a separate class is 24.2 per cent. This is somewhat lower than the average ratio for sales of all classes of property, which is 27.9 per cent. Twenty-seven of the counties have ratios higher than this average for agricultural land, ranging up to 44.7 in one county. Twenty-five of the counties have ratios lower than this average, ranging down to 11.5 in one county. Nine counties have agricultural land sales ratios between 23.0 and 25.4, within five per cent on either side of the average. Twenty-two counties have ratios above and twenty-three counties have ratios below this five per cent variation.

Comparison of Dry and Irrigated Land. One significant relationship that is indicated by comparing these ratios is that irrigated land, as a class, has a higher ratio than dry land as a class. The counties having ratios above the average are predominantly counties of irrigated farming, there being only one county in the group having no irrigated farming. Those having ratios below the average include thirteen counties having little or no irrigated farming. This indication is supported by the following comparison of separate ratios on different classes of agricultural land.

County "A" has irrigated and dry farm land in approximately the proportion of one to five, respectively. In this county, the sales ratios on separate classes of farm land are as follows:

1) on farm units having dry farm land, but no irrigated land 22.3;

2) on farm units having grazing land, exclusively (no farm land) 20.2; and

3) on farm units having some irrigated farm land 28.3.

County "B" has irrigated and dry farm land in approximately the proportion of twenty to one, respectively. In this county, the sales ratios on separate classes of land are as follows:

1) on farm units having dry farm land, but no irrigated land 21.0;

2) on farm units having grazing land, exclusively (no farm land) 23.1; and

3) on farm units having some irrigated farm land 35.6.

County "C" has no irrigated land, and sales were of lands which had only a small amount of grazing land associated with dry farm land. The sales ratio was 19.7.

County "D" has no dry farm land, and has irrigated land and grazing land in approximately the proportion of two to five, respectively. In this county, the sales ratios on separate classes of land are as follows:

1) on farm units having some irrigated farm land 23.5;
and
2) on farm units having grazing land, exclusively (no farm land) 8.1.

The average ratios for these categories, for the entire state, are as follows:

1) on farm units having dry farm land, but no irrigated land 20.8;

2) on farm units having grazing land, exclusively 17.8;
and
3) on farm units having some irrigated farm land 27.4.

Comparisons of Assessed Valuations at County Lines. Another comparison that can be made to indicate the degree of equalization between counties is a comparison of assessed valuations of similar lands in adjoining counties at the county lines. Following are the results of such comparison:

	Valuations per Acre of Lands Adjoining at County Lines							
	Grazing Land		Dry Farm Land		Meadow Hay Land		Sales Ratio Ag. Land	
County A In Comparison	Co. A	Other Co.	Co. A	Other Co.	Co. A	Other Co.	Co. A	Other Co.
With County B	4.50	2.50	20.00	12.00	42.00	40.00	24.9	26.4
With County C	4.50	2.50 to 3.50	None	None	None	None	24.9	31.8
With County D	4.50	2.50	None	None	42.00	45.00	24.9	27.7
With County E	4.50	3.00	None	None	None	None	24.9	19.8

			Irrigated Farm Land		Sales Ratio Ag. Land	
County F in	Grazing Land					
Comparison	Co. F	Other Co.	Co. F	Other Co.	Co. F	Other Co.
With County G	2.50	2.50	20.00	10.00	24.2	23.6
			60.00	100.00		
With County H	2.50	3.80	None	None	24.2	26.9
With County I	2.00	2.75	15.00	20.00	--	--
	2.50	4.00	30.00	50.00	--	---
With County J	2.50	2.80	72.00	35.00	--	--
			80.00	70.00		

County K in Comparison	Valuations per Acre of Lands Adjoining at County Lines					
	Grazing Land		Irrigated Farm Land		Sales Ratio	
	Co. K	Other Co.	Co. K	Other Co.	Co. K	Other Co.
With County L	None	None	15.00	25.78	34.5	37.7
			45.00	46.45		
With County M	5.00	2.00	30.00	42.50	34.5	31.2
			75.00	60.00		
With County N	2.50	2.00	30.00	29.25	34.5	44.7
			75.00	67.50		

County O in Comparison	Grazing Land		Dry Land		Irrigated Land		Sales Ratio	
	Co. O	Other Co.	Co. O	Other Co.	Co. O	Other Co.	Co. O	Other C.
With County P	2.75	2.75	5.00	8.00	None	None	27.0	22.9
With County Q	2.75	4.00	5.00	8.00	None	None	27.0	24.3
			12.00	15.00				
With County R	3.00	3.25	5.35	6.00	None	None	27.0	19.9
			12.00	12.00				
With County S			15.00	20.87	116.50	127.00	27.0	27.4
With County AF	2.00	3.00	5.00	15.00	131.35	116.00	27.0	28.9
	5.00	3.00	25.00	26.00				

In this example, County A is seen to have higher valuations than its neighboring counties. This county is one in which agricultural land has not been re-appraised. In 1952, existing valuations in this county were increased by a uniform percentage. As can also be noted, its valuations are uniform within each class, indicating failure to classify land according to its relative production capability.

Sales ratios for the counties are also shown for purposes of comparison. In this connection, it should be noted that the comparison of assessed valuations at the county lines is not necessarily the same as the comparison of sales ratios. The sales ratios are a measure of the level of assessments on all land in each of the counties. County-wide, a county may have a higher or lower level in relation to its neighbor than is the case at the county line. In the first example, this difference is quite noticeable. County "A" uses uniform valuations per acre, county-wide for each of the three classes shown. As a result, land adjoining a particular neighboring county may appear to be assessed at a high level by comparison. On the other hand, land in the interior of the county, being of better quality but assessed at the uniform valuation, is assessed at a lower level in relation to its value.

Comparison by Crop Statistics. An attempt has been made to develop another means of comparing the valuations of agricultural lands from one county to another. This was an attempt to determine from such statistics as were available the average gross production of all crops in each county,

determine an average gross production per acre of cropland, and an average net income per acre, and then capitalize this average net income per acre at five per cent. This capitalized average net income per acre would then be compared with the average assessed valuation of the lands. No statistics were developed which it was felt were sufficiently reliable for publication.

The chief obstacle encountered was that all available statistics of crop production are on the basis of acres harvested. No satisfactory way was found to adjust the statistics so as to represent the total and average yields for all crops planted, whether harvested or not. Limitation of the study only to crops actually harvested would not give a true evaluation of the productivity of all of the crop land.

In search for a way of making such a comparison, another comparison was developed which is of interest. For six counties, widely separated geographically, an average gross receipts figure per acre was calculated for the period 1934 to 1943, inclusive, and for the period 1948 to 1956, inclusive. These averages were based upon acres harvested, only, and are gross receipts only. No costs of production have been taken into consideration for either period. Following is a comparison for the six counties showing the increase in average gross receipts per acre from the earlier period to the later:

	Irrigated Land		Dry Land	
County	1934-1943	1948-1956	1934-1943	1948-1956
Baca	14.48	42.45	4.48	12.18
Bent	47.72	95.44	2.71	17.04
Delta	25.36	61.51	--	--
Garfield	26.37	51.51	9.41	12.66
La Plata	17.67	40.20	--	--
Lincoln	14.93	50.86	4.37	11.21

These comparisons are not given as a measure of the increase in the value of the land from the earlier period to the later period, but only as an indication of the increase in value that has occurred.

Findings and Conclusions

1) The method of appraising agricultural land for assessment set forth in the tax commission's Real Estate Appraisal Manual is the best method available at present for such appraisal.

2) The provision of this method of appraisal as the tax commission policy on the assessment of agricultural land has failed, in itself, to produce wholly satisfactory results in assessments of agricultural land because:

a) factual information needed to implement the use of the method either has been not obtainable, or has not been obtained in some instances;

b) in varying degrees, from county to county, the method has not been applied, or has been applied incorrectly, inefficiently, or with insufficient thoroughness, and it has not been applied uniformly;

c) in some counties, the valuations resulting from appraisals have not been used in actual assessments, or have been used in altered form;

d) tax commission administration, instruction, supervision and enforcement of the use of the prescribed method has been ineffective;

e) the method has been insufficiently understood by many of those using it;

f) insufficient trained man power has been applied to appraising and assessing in many counties;

g) insufficient funds have been available in many instances;

h) local resistance on the part of officials and taxpayers has, in some instances, obstructed effective administration; and

i) prior to the present sales ratio study, and assessment methods study, the results of the appraisal had not been adequately tested.

3) Equalization of assessed valuations on agricultural land does not exist within counties, among counties, or with other classes of property.

4) For purposes of assessment, land should be classified as agricultural land, extractive land, or situs land.

5) Agricultural land should be defined as that land which is used for the production of livestock or agricultural products, or is held principally for such use, and which derives its value from its capability for producing such products.

6) Agricultural land should be assessed according to its capability of producing income through the production of agricultural products or grazing of livestock.

7) For purposes of such assessment, agricultural land should be classified according to its capability of production, such classification being designated as land capability classes.

8) Agricultural land which is used for the grazing of livestock should be classified according to its animal-carrying capacity.

9) Each land capability class, within each area in which similar conditions affecting agricultural production prevail, should be assessed at a valuation per acre determined by capitalizing the average net income from such class of land, under average management, with typical farming practices, during a period of ten consecutive years.

10) The assessed valuations for each capability class in each area should be reviewed annually with reference to the average production experience of the preceding ten years, provided that no adjustment of existing assessed valuations should be made representing a change of less than five per cent.

11) That the Colorado tax commission should be authorized and required to gather and compile such information concerning agricultural and livestock production from any source available as is needed for the assessment of agricultural land.

12) No land should be assessed as agricultural land which is not used for agricultural purposes, or held for such use, and that if land which is agricultural in use has in addition thereto a use which is either extractive or situs in nature, the value of such additional use should be taken into consideration in assessing such land.

13) Such legislation as is needed to implement the foregoing conclusions should be enacted.

VI

THE ASSESSMENT OF EXTRACTIVE LAND

Extractive land may be defined as that class of land which derives its value primarily by the extraction or removal of products from it. It includes those classes of land commonly known as mining claims, petroleum land, coal mines, quarries, sand, gravel and clay pits, mineral rights, and timber land. The determination of its value depends primarily upon the market value of the product extracted, the cost of such extraction, and the fact that the product extracted is either irreplaceable or requires a long period of time for replacement.

Currently the assessed valuation of this class of land in Colorado is a small part of the entire assessed valuation of the state. The 1958 valuation of $167,094,466 represents 5.1 per cent of the total valuation of all taxable property in the state. While this proportion may be relatively small in the total picture, extractive lands constitute a distinct class of property that should be subjected to equalized assessments the same as any other. The relative proportion is extremely important in many counties, and the relative importance of the class could become greater with further development of the mineral resources of the state.

Table V shows, for each county, the total assessed valuation of this class of land, and its relative importance in relation to the total valuation of real property. Table VI shows the total 1958 assessed valuations of various classes of extractive lands as reported to the tax commission by the county assessors.

Mines and Mining Claims

Statutory Provisions. The law prescribes in some detail a method of assessing producing mines. It defines "producing mines" as "mines and mining claims whose gross production shall exceed five thousand dollars." It requires the owners or operators of such mines to render a statement of: 1) the gross value of production for the preceding year; 2) the actual costs of extracting, transporting to place of reduction and sale, treatment and sale; and 3) the "net proceeds" after deducting the above expenses. It then prescribes a method of valuing said producing mine. The assessor is required to determine the "gross proceeds" and the "net proceeds" and assess the mine at either one-fourth of gross proceeds or all of net proceeds, whichever is the larger.

TABLE V

1958 Assessed Valuation of Extractive Land by Counties

County	Assessed Valuation	Per Cent*	County	Assessed Valuation	Per Cent*
Adams	$ 2,806,700	3%	Lake	$ 10,806,570	62%
Alamosa	22,021	- 1 **	LaPlata	2,687,025	12
Arapahoe	233,790	- 1 **	Larimer	790,480	1
Archuleta	246,926	9	Las Animas	1,524,180	9
Baca	342,662	3 **	Lincoln	615,960	5 **
Bent	61,973	- 1 **	Logan	15,116,515	35
Boulder	561,110	- 1	Mesa	1,134,470	2
Chaffee	314,070	4	Mineral	188,561	21
Cheyenne	1,410,535	16 **	Moffat	3,797,080	32
Clear Creek	1,040,070	25	Montezuma	16,125	-1
Conejos	21,355	- 1	Montrose	4,581,950	25
Costilla	85,055	2	Morgan	17,142,940	36
Crowley	86,140	2 **	Otero	27,740	-1 **
Custer	104,293	4	Ouray	845,724	30
Delta	64,045	- 1	Park	548,845	10
Denver		0	Phillips	40,415	-1 **
Dolores	202,360	6	Pitkin	170,030	3
Douglas	69,400	1	Prowers		0
Eagle	1,123,242	19	Pueblo	64,065	-1 **
Elbert	474,861	6 **	Rio Blanco	63,425,500	92
El Paso	214,080	- 1	Rio Grande	43,222	-1
Fremont	459,660	2	Routt	370,780	3
Garfield	660,970	5	Saguache	115,080	2
Gilpin	710,620	37	San Juan	854,331	62
Grand	40,895	- 1	San Miguel	1,707,430	35
Gunnison	837,370	10	Sedgwick	64,400	-1 **
Hinsdale	214,785	23	Summit	1,504,555	47
Huerfano	49,485	- 1	Teller	872,890	21
Jackson	1,722,948	35	Washington	17,011,247	49
Jefferson	121,050	- 1	Weld	5,983,330	6
Kiowa	368,870	4	Yuma	32,390	-1 **
Kit Carson	284,295	2 **			

* Per cent of total assessed valuation of real property in county.

** Exclusively severed mineral rights.

TABLE VI

1958 Assessed Valuation of Extractive Land for State by Classes, as Reported to Tax Commission

Class	Assessed Valuation	% of Total Assessed Valuation Extractive Land
Producing Coal Land	$ 437,871	0.3%
Non-Producing Coal Land	418,980	0.2
Developed Coal Land	253,480	0.2
Undeveloped Coal Land	1;122,230	0.7
Matalliferous Mining Claims	7,913,753	4.7
Output of Metalliferous Mines	391,535	11.6
Quarry Land	406,320	0.2
Placer Claims	1,318,397	0.8
Leasehold Interest per Production (Oil & Gas)	128,630,417	77.0
Oil Shale Land	617,455	0.4
Mineral Reserves	6,411,099	3.8
Timber Land	172,929	0.1
Total	$167,094,466	100.0%

It provides that machinery and surface improvements shall be assessed separately. This provision implies that underground improvements such as installed rail, waterline, air line, power lines, timbering, etc., are not to be separately assessed. They are, instead, included in the valuation of the producing mine.

It limits the use of this method to mines producing "gold, silver, lead, copper or other precious or valuable minerals." It specifically excludes from assessment by this method mines producing "iron, coal, asphaltum, quarries and lands valuable because containing other metals, minerals or earths."

It provides that mining claims and possessory rights not classified as producing mines shall be assessed according to their value. The assessor, in assessing them, shall consider location, proximity to other mines or mining claims and any other matters which may tend to assist him in arriving at a fair and equitable evaluation of such property.

It provides that no non-producing mining claim may be assessed at a greater sum per acre than is assessed against the lowest-valued producing mine in the same "locality."

It provides that "any number of contiguous claims owned and operated as one property by the same person, association or corporation, the gross production of which shall be more than five thousand dollars per annum, shall be deemed and considered to be one producing mine for the purpose of this chapter." [1]

Tax Commission Policy and Assessment Practice. Since a method of assessment has to some extent been prescribed by statute, tax commission policy has been limited largely to interpreting the statute as problems develop, and leaving assessment to the discretion of the assessor within the limitations of the statute. These interpretations have not been gathered together into one set of instructions. However, they are matters of common knowledge among assessing officers and taxpayers concerned with this class of property.

Assessment of Producing Mines. As stated above, there is a method for assessing producing mines prescribed by statute. The wording of the statute is such that there has been considerable difficulty in interpreting its meaning for application to actual assessment situations.

The statute classifies mines as producing mines and non-producing mines. In order to be classified as a producing mine, the mine must produce a specific type of metal. If it produces "gold, silver, lead, copper or "other precious or valuable minerals" it is classified as a producing mine. If it produces "iron, coal, asphaltum, quarry materials, or other metals, minerals or earths" it is not classified as a producing mine for purposes of assessment. Since only a few mineral products are specifically named, it is difficult to determine to which category other products belong. Are they "other precious or valuable minerals" and therefore in the category of producing mines, or are they "other metals, minerals or earths" and therefore in the non-producing category?

Many kinds of extractive materials are produced in Colorado today which are not specifically named in either category. It has been necessary for a decision to be made each time a new product appears. In general, mines producing those products which are metallic in nature and are produced by ordinary mining methods are treated as producing mines. Those whose products are non-metallic in nature are usually not assessed as producing mines. In addition to gold, silver, lead, and copper, the

---

1. C.R.S. 1953, Art. 137-5.

following metals have, by common practice, come to be regarded as qualifying the mines from which produced for assessment as producing mines: Tungsten, zinc, molybdenum, vanadium, uranium, tin, and beryllium.

Another requirement specified for qualification of a mine as a "producing mine" is that its "gross production" for the preceding year exceed five thousand dollars. The term "gross production" is not clearly defined. The term has been interprested in practice to mean the gross value of the ore, less costs of transportation, treatment, reduction and sale. In other words, it is the amount for which the crude ore could be sold at the entrance of the mine.

There has been the same uncertainty regarding the meaning of the terms "gross proceeds" and "net proceeds" which are used in prescribing the method of calculating the assessed valuation. In practice, the terms have been interpreted as follows: the term "gross proceeds" means the same as "gross production" and excludes costs incurred after the ore is extracted from the mine; and "net proceeds" means the amount which remains after costs of extracting the ore from the mine are deducted. All of these interpretations have been sustained by the courts.[2]

A standard form is used on which a mine operator is required to return to the assessor a statement of his annual production for the preceding year. It provides for the following information in addition to the identification of the mine and its owner: (1) gross value of ore produced; (2) cost of transportation; (3) cost of treatment, reduction and sale; and (4) cost of extraction.

The following example best illustrates how this information is used in assessing the mine.

Gross Value of Ore. (Gross Sales Price)		$10,000,000
Less Cost of Transportation	$ 100,000	
Cost of Treatment, Reduction and Sale	2,500,000	2,600,000
Gross Proceeds		$ 7,400,000
Less Cost of Extraction		3,700,000
Net Proceeds		$ 3,700,000
One-fourth Gross Proceeds Equals		$ 1,850,000
Net Proceeds Equals		$ 3,700,000
Assessed Valuation is the larger of the two		$ 3,700,000

2. Standard Chemical Company v. Curtis, 77 Colo. 10, 233 P. 1112 (1925); Tallon v. Vindicator Consolidated Gold Mining Company, 59 Colo. 316, 149 P. 108 (1915); Paxson v. Cresson Gold Mining and Milling Company, 56 Colo. 206, 139 P. 531 (1914).

If net proceeds are smaller than one-fourth of gross proceeds, the assessed valuation is one-fourth of gross proceeds. Thus, it is possible that costs of extraction may exceed gross proceeds, resulting in no net proceeds. Yet there is a minimum assessed valuation equal to one-fourth of the gross proceeds.

Given the information included in the statement of annual production, the process of calculating an assessed valuation is very simple. Of more concern to the assessor is the problem of whether the information is correct. This is not a question of honesty of return so much as it is one of accounting practice. The statute does not specify what is included in the general items of cost which are deductible. It is important to know whether an item is deductible. It is equally important to know at what point it is deductible. No definite policy has been formulated governing the exact cost accounting which should be used.

One example of a problem faced in this respect regards the costs of developing a mine for future production. Should such development be deducted as a cost of extraction for the year in which incurred? Or should it be capitalized and a portion be deducted annually for several years? The law does not answer this problem. No definite policy has been established. In practice, assessors permit the mine operator to use whichever method he prefers. With either method, the cost cannot be deducted more than once. However, it does make a difference which one is used. If in deducting the full cost in one year, the net proceeds is caused to be less than one-fourth the gross proceeds, the operator has, in effect, deducted some portion of the cost without a reduction of assessed valuation.

No mention is made in the statute of what is commonly known as depletion allowance. The question is frequently raised whether this allowance is deductible as a cost of extraction. In practice, such deduction is not allowed.

In the case of small mine operations, poor accounting is typical. This can result in considerable confusion. For example, a small operator may haul his ore from the mine in his own trucks. He is entitled to deduct the cost of such hauling as cost of transportation. It is important that it be deducted as such in order that the gross proceeds be reduced, rather than net proceeds only. Yet, some operators maintain a supply of gasoline and motor oil which is used for both trucks and mine machinery. No accounting is kept of how much is used for each purpose. Therefore, it is impossible to determine accurately how much is deductible as transportation.

This is but one example of the many problems of the assessor and operator in making a production assessment. It has been necessary for the assessor to audit many returns merely in the interest of securing correct information which the operator cannot supply unassisted.

Another problem in the interpretation of the statute is that of how many mining claims may be included in the assessment on a producing mine. The words of the statute are "any number of contiguous claims owned and operated as one property by the same person, association or corporation .... shall be deemed and considered to be one producing mine." The interpretation of this provision is important. Such claims as are included as part of a producing mine are subject to no other assessment. Those excluded are assessed at the prevailing valuation per acre as non-producing claims. As holdings have been consolidated into groups consisting of hundreds of claims, it has become very important to limit as much as possible the number of claims that can be included in the unit assessment.

Mine owners seek to include as a part of the unit as many claims as possible. Emphasis is placed by them upon the term "contiguous." Claims are contiguous if their boundaries are touching or overlapping. The mine owners seek to include claims to which they do not even have fee title, but which are only leased or under option to purchase, if contiguous with the ones owned. They manufacture contiguity by locating additional claims for the sole purpose of joining separate claims into a single group. As a result, groups have extended to the point where some claims of a group of contiguous claims may be several miles away from the location of the mining operation.

The tax commission and the assessors, as a matter of policy, have attempted to limit this tendency. They have insisted on interpretation of the clause as a whole. The producing mine unit is limited to claims which are both owned and operated by one person, association or corporation, as well as being contiguous one to another. The requirement of operation limits claims included in the unit to those directly connected with the mining operation, i.e. 1) those from which ore is extracted during the year, 2) those through which ore is transported to the surface, 3) or those upon or in which any phase of the mining operation is conducted. Claims at a distance, which are being held for future exploitation or for some other purpose, are not included. However, in practice this policy is not followed strictly, with the result that many acres of mining claims are included in unit assessments of producing mines which should be assessed separately.

Another problem in the assessment of a producing mine is that of the division of the assessment among two or more counties when the producing group extends beyond the limits of one county. The law is silent on this question. As the assessment is a unit assessment, it is not possible to assess different claims of the unit at different valuations. The only logical way is to distribute the valuation equally over all claims in proportion to surface acreage. Two methods of solving this problem have been developed, and both are in use in different areas of the state. They are: 1) division of the unit assessment among counties in proportion to the number of acres of claims in each county; and 2) limitation of the unit assessment to claims located in the county where the ore is brought to the surface.

In the case of division of the unit assessment, the assessors must first agree on the amount of the assessment. They must then agree on which claims are included in the unit. It is then very simple to apportion the assessment by acreage within each county. In the determination of claims included, there is a tendency in both counties to permit inclusion of as much acreage as possible in order to increase the proportion of total acreage in the county. This is primarily responsible for the violation of the policy relating to limitation of the unit.

The other method, limiting the unit to one county, is clearly illegal, but is used in some cases, nevertheless. The county wherein the ore is brought to the surface makes a unit assessment based on production on those claims within the county. The other counties assess the claims of the producing unit which are within their boundaries as non-producing claims at a high valuation per acre. This amounts to a double assessment upon the mine owner, as under the law he is entitled to have a single unit assessment upon the entire producing mine.

The use of this method is based upon a misinterpretation of a supreme court decision. In the case of Standard Chemical Co. v. Curtis (1925) 77 Colo. 10, 233 P. 112, it was ruled that ore should be valued at the point of its separation from the surface. The clear intent of this ruling was to clarify the definition of the terms "gross proceeds" and "costs of extraction" used in calculating a valuation, and not to the situs of the assessment. If the latter were true, only a single claim could be included in a unit assessment. The case had nothing to do with inter-county assessment.

Another problem encountered by assessors in the assessment of producing mines is the failure or refusal of mine owners to render a return of their production. This problem has developed in the assessment of uranium mines. For many years mine operators were not permitted by the Atomic Energy Commission to report their annual production to county assessors. This hindrance was partially removed when the tax commission was permitted to obtain from purchasers of ore the amount of money paid to each operator for ore delivered. Since in uranium mining the ore is purchased before it is processed, it was possible to determine from this information the amount of gross proceeds and to make a minimum assessment of one-fourth of that amount. The operator was inclined to refuse or neglect to supply his cost of extraction needed to determine net proceeds. He was being assessed anyway and reporting his cost of extraction could not reduce his assessment. It could, though, increase his assessment, if the cost were sufficiently low.

Some assessors have adopted the practice of making arbitrary assessments which are obviously excessive, known as arbitrary assessments. Then when a statement of costs is received from the operator, the assessment is adjusted to a correct amount. In many cases the correct assessment is more than one-fourth of gross proceeds.

Other assessors have continued to assess at one-fourth of gross proceeds without determining net proceeds. As a result, many operators have been escaping with lower assessments then they should, merely by refusing to render a statement.

Another problem that has been encountered in the assessment of uranium mines is the assessment of the possessory right of lessees of government owned claims. This problem was not encountered before the formation of the U. S. Atomic Energy Commission, as the Federal government had no policy of leasing mining claims. Ownership of mines was in two forms: 1) possessory rights in unpatented mining claims; and 2) fee title in patented claims. A person could establish a claim to a mineral deposit by "locating" it, and could retain possession by doing annual "assessment work" (development work on the claim). So long as he complied with the law, performing what was required, he had a possessory right in the deposit, together with a right of use of the surface of the land. After complying with the requirements of the law, he could be issued a patent deed to the mining claim by the federal government. He then had fee title. Colorado law provides that both patented mining claims and possessory rights are taxable. [3] This law has been upheld by the U.S. Supreme Court.[4]

Then the practice of leasing mineral deposits to private operators was adopted by the Atomic Energy Commission, instead of permitting location of claims in certain withdrawn areas. Assessors decided that, while the Atomic Energy Commission, the owners of the land, were not subject to taxation, the lessee had a possessory right and that right was assessable under Colorado law. Therefore, such lessees were assessed for their leasehold interests on the basis of annual production. This practice is now involved in a lawsuit in district court in Montrose County in the case of LaSalle Mining Company v. Montrose County.

Non-Producing Mines. All mining claims which cannot be classified as producing mines are assessed as non-producing mines. The law provides that such claims, patented or unpatented, shall be assessed according to the value thereof. The tax commission has left the assessment of such mining claims to the discretion of the assessor. As result a wide variation has developed in assessment practice.

There is no practical way of determining the value of a mining claim. Its value depends upon the value of the mineral concealed beneath the surface. This value cannot be determined before exploration. After exploration, information relating to the value is not available to the assessor.

---

3. C.R.S. 1953, Sec. 137-5-4 and 9.
4. Elder v. Wood, 208 U.S. 226, 52 L. ed. 464, 28 S. Ct. 263 (1908)

The typical practice is to assess all mining claims at a uniform valuation per acre within each county. This valuation per acre, in each county, has a historical basis. The same valuation has been used for a long period of years and is frozen by local tradition. It bears no relationship to any evidence of value, such as the selling price of claims.

Some assessors have adopted a scale of valuations. They use a different valuation per acre for claims in one area than for those in another, or for different kinds of mineral deposits. This is done when it is commonly accepted that claims in one area are definitely of greater value than claims in another area.

Valuations used vary from $2.95 per acre in one county to $120 per acre for claims in two adjoining counties. In one tri-county area, forming a single mining area, claims are assessed at $50 per acre in one county, $40 per acre in another, and $36 per acre in the third. It is possible for a single claim, lying partly in each of the three counties, to be subject to each of the three levels of valuation. Claims lying across the county line between two of the counties are common.

In twenty-two counties, mining claims are assessed at a uniform valuation per acre. In nine counties they are assessed at different valuations per acre according to location or type of mineral deposit.

Non-producing, unpatented mining claims are assessed in only one county in any significant number, although five other counties, having a small number, also assess them. They are assessed uniformly at $5.00 per acre.

Level of Assessment. The problem of equalization with assessments on other classes of property is quite confusing. Little has been learned from the current sales ratio study concerning this particular problem. There have been no sales of producing mines reported. If there were, such sales information would be of no value. The assessment of a producing mine bears no relationship to the sales price of mines. It is based each year entirely upon the value of production for the preceding year.

There have been few "arm's length" sales of non-producing mining claims. Many claims, previously taken for delinquent taxes, have been sold by the counties. These have not been accepted for use in the sales ratio. However, in the absence of normal sales, they do give an indication of the amount purchasers are willing to give for mining claims.

In most counties, such claims do not sell for more than $100 per claim. For a full ten-acre claim this would be $10 per acre. These claims in some counties are assessed at from $18 to $50 per acre, indicating a ratio of, not 30 per cent, but of from 180 per cent to 500 per cent. This is not a temporary market situation, but one which has existed for many years.

There is firm resistance in many counties to any suggestion that the valuations should be reduced in the interest of equalization. In the counties where the highest valuations per acre are used, the assessed valuation on non-producing mining claims is a major part of the total assessed valuation in the county. These are counties of low total assessed valuation, and assessors and commissioners feel that they cannot afford to reduce their valuations materially.

People do pay taxes on these high valuations on large numbers of claims, year after year. Those upon which taxes are not paid are taken by the county for delinquent taxes and some are resold for at least as much as the accumulated delinquent taxes. However, large numbers of mining claims in the state have been removed from the tax rolls through delinquency and have not been returned to the rolls through resale, because of high assessed valuations.

Coal Lands

Lands containing deposits of coal are excluded by law from assessment based upon annual production. All such lands are assessed at a certain valuation per acre. The fact that a mine is operating, or capable of being operated, is considered in determining the valuation per acre.

Coal lands have been classified by administrative policy as producing, non-producing, developed and undeveloped. These classifications are defined as follows: "Producing Coal Land shall be deemed to be such forty-acre units as have workings in a seam of merchantable coal, and from which coal is being extracted during the current year." "Non-Producing Coal Land shall be deemed to be such forty-acre units of undeveloped merchantable coal as adjoins forty-acre tracts of producing or developed coal land, providing the non-producing acreage shall not exceed ten years normal production from the mine." "Developed Coal Land shall be deemed to be such forty-acre units as shall have at least one entry driven more than half-way across such forty, indicating probability of merchantable coal in place throughout the current year." [5]

The tax commission recommends that the assessors assess according to these classifications, and cooperate toward the end of achieving equalization of assessments on this class of property among counties.

Following is a resume of 1958 assessed valuations per acre in counties which assess a significant amount of land as coal land. [6]

---

5. Colorado Tax Commission Circular No. 1, 1958.
6. Abstracts of Assessment, 1958.

County	Producing	Non-Producing	Developed	Unveveloped
Boulder	$------	$------	$ 22.40	$ 7.03
Delta	143.48	22,93	------	-----
El Paso	140.21	25.71	------	1.58
Fremont	293.08	34.30	200.54	19.47
Garfield	------	21.99	------	4.61
Gunnison	403.00	43.94	200.41	9.82
Huerfano	283.33	100.00	200.00	3.06
Las Animas	478.80	334.23	132.14	65.18
Moffat	------	3.60	------	1.41
Pitkin	400.00	------	------	5.36
Routt	500.00	30.00	200.00	8.00
Weld	396.77	65.47	200.42	10.00

Oil and Gas Lands

The assessment of producing oil and gas wells has not been prescribed by law. Tax commission policy is to assess them on the basis of production for the preceding year. An oil well is assessed at eighty-seven and one-half per cent of the value of the production at the well-head determined by multiplying the total number of barrels produced by the average price per barrel at the well-head. A gas well is assessed on the same basis, with the posted field price being used. The assessments are made upon leasehold interests, whether the oil and gas rights are owned publicly or privately, and the amount of land included in each assessment is limited to ten acres.

Assessors are using this policy with strict uniformity. Therefore, it may be said that within this class of property there is uniformity of treatment. However, there is not equalization of valuations within the class because the gross value of production is used as a base. No adjustment is made for varying costs from one well to another. It would be more equitable for the assessment to be based upon the net proceeds, as in the case of mines.

It is not possible to determine whether the assessments on this class of extractive land are equalized with those on all other classes of property. They obviously are not equalized with assessments on producing mines, because the minimum assessment on an oil or gas well is eighty-seven and one-half per cent of its gross proceeds, while the minimum assessment on a producing mine is twenty-five per cent of its gross proceeds. Furthermore, it is possible for a profitable mine to be assessed for no more than its net proceeds, while all oil and gas wells are assessed on the basis of gross proceeds.

The existence of these differences indicates that equitable assessment would require the use of the same method of assessment for all types of extractive land. However, there has been no great desire on the part of either assessors or taxpayers for assessment of oil and gas wells in the same manner as mines, even though this might result in a more equitable

assessment. In the first place, the present method, requiring no reporting of costs, is very simple. In the second place, there is no advantage to the operator of an oil or gas well in the reduction of the property tax assessment. The reason for this is that, in the payment of severance taxes, the operator is allowed credit for the full amount of property tax paid. Therefore, the property tax actually costs the operator nothing as long as it does not exceed the amount of his severance tax liability. Furthermore, there is no inclination on the part of assessors to adopt a policy which results in a reduction of the valuation, since it is felt that if the local governments do not get the money, the state will.

Mineral Rights

Distinct from mining claims are the rights to such minerals, including oil and gas, as may exist under land. The ownership of these rights may be separated, or severed, from the ownership of the surface. The mineral rights under much of the land was reserved by the federal government when patent deeds to the land were issued. Likewise, the State of Colorado has reserved the mineral rights under school sections as they have been sold. County governments have reserved mineral rights when selling tax titles to land. All of these rights which are owned by the governments are, of course, exempt from taxation except for the assessment of privately-owned leasehold interests when producing.

Privately-owned mineral rights have also been severed from surface ownership. They have been sold separately by the owners of the land, or have been reserved when the land was sold. These privately owned mineral rights, when owned separately from the land surface, have been ruled to be subject to taxation, even though there may be no evidence of the presence of minerals.[7]

Present policy is to assess severed mineral rights at a minimum valuation of one dollar per acre. In practice, not all counties have done so. It is difficult to determine the current ownership, and some counties have not seen fit to undertake it. Some of these counties do assess such mineral rights when the ownership is known, or when the owner requests their assessment; but make no attempt to assess all of them. Twenty-four counties assess all severed mineral rights at $1.00 per acre. Twenty-two counties assess them only on request of the owner. Seventeen counties do not assess them. Since some taxable property is escaping assessment, there is lack of equalization.

Mineral rights owned with the land are not assessed unless the presence of minerals is positively known. Therefore, the peculiar situation exists where two farms of equal value are assessed differently. If one man owns one of them complete with the mineral rights, he is assessed for only the surface value of the land. If the owner of the other does not own the mineral rights, he is assessed in the same manner for the surface value of the land, and another man who owns the severed mineral rights is assessed for them. Thus one farm is actually assessed for $1.00 per acre more than the other, merely because ownership of mineral rights is separate from the land.

---

7. Union Pacific Railroad Co. v. Hanna, 73 Colo. 162, 214 P. 550 (1923).

Timber Land

There is very little taxable timber land in the state. It is regarded as extractive land because income is derived by cutting timber which is replaced only after a long period of time. Only timber land from which timber can be cut and marketed at a profit, referred to as merchantable timber, is assessed as timber land. Only a small acreage of such land is privately owned, the bulk of it being publicly owned. In 1958, only 9,161 acres of land were assessed as timber land, with a total valuation of $172,929.

The valuation of timber land in present practice is on an acreage basis. The value of the timber (what can be realized by marketing it) is added to the value which would be placed upon the land if the timber were not merchantable. This practice does not recognize the extractive nature of timber.

Miscellaneous Extractive Lands

The assessment of quarries, sand and gravel pits, clay pits, and mines producing non-metallic products such as feldspar and fluorspar has been left entirely to the discretion of the individual assessor. The classification of such extractive lands as producing mines is forbidden by the statute. However, assessors try to assess them, when producing, at what they consider is a fair valuation per acre, considering the production as a factor. Usually, when not producing, they are considered to have little value.

Comments on Assessment of All Classes of Extractive Land

The preceding analysis of assessment policies and practices leads to but one conclusion. A very confused situation exists with reference to the assessment of extractive land. There is no uniform policy or practice applying to all parts of the general class. It is not possible to determine whether equalization exists between the class of land and others because it is not possible to determine what the value of this class of land is.

It can be said, however, that if equalization exists at one time between this class and others, it does not exist at another time. This is due to the static situation which exists in the assessment of extractive lands. In general, the assessed valuations per acre imposed upon non-producing extractive lands have remained unchanged for several decades. During the depression of the 1930's, when the valuations on other property were drastically reduced, those on extractive lands were not. In 1952, when the re-appraisal was effective, the valuations of other property were increased; those on extractive lands were not. Now, when valuations of other property are but a small percentage of market value, the valuations of extractive lands are in many cases several times market value in those cases where market value can be determined.

The method of assessing a producing mine, prescribed by statute, has remained unchanged since 1902. The net proceeds, or one-fourth of

the gross proceeds is always used as the assessed valuation. If this is the full value of the mine then it is always assessed at 100 per cent of its full value, and is over-assessed. If not, the reverse may be true.

It is commonly alleged that producing mines are under-assessed in comparison with other lands. The basis for this allegation is the fact that a producing mine may be assessed at no more than its net proceeds for the preceding year. The term "net proceeds" is confused with "net profit." It is argued that while a farm may be assessed for twenty times its average annual net profit, a mine is assessed for no more than its annual net profit.

This contention is fallacious in many respects. First, it confuses "net proceeds" of a mine with "net profit" of a farm. The net profit of a farm is that amount of money which is realized after expenses are paid, annually, without end, so long as the land remains productive. It is, therefore, a return from investment which continues, leaving the investment intact.

On the other hand, net proceeds of a mine is a return of, as well as from, investment. It is the amount which is left from a year's production after the expenses of production have been paid. Only an undetermined amount of it is profit. Furthermore, after the year's production, the value of the investment has been reduced by the net value of the ore which has been extracted, and eventually the owner has nothing left. Therefore, during the life of a mine, if its operation is to be profitable, the owner must try to realize from net proceeds a complete return of his investment, plus a net profit from his investment.

Second, it overlooks the extractive nature of a mine. The value of a mineral deposit is usually the value of the mineral contained in it less what it costs to remove and market the mineral, including a reasonable profit for the owner. When it is removed, nothing is left. If it would cost more than the value of the mineral to remove it and market it, the deposit has no value.

This value can be realized only once and a profit can be made upon it only once. Therefore, it would not be equitable to assess the mineral deposit for its full value, year after year, until it is depleted.

The value of a mineral deposit cannot be determined with any degree of certainty in advance of its extraction, not even with the most advanced geological and engineering techniques. Nor can the exact cost of extracting the deposit be foretold.

The present method of assessing producing mines recognizes these principles to an extent. Whether it produces an assessed valuation which is equitable in relation to assessments on other property can scarcely be determined. However, if the net proceeds of a mine is properly determined, and if the mine is assessed on the basis of net proceeds, year after year, during its lifetime, the mineral deposit will be assessed, in all, for something in excess of its full value. Perhaps, this is as

8) The term "gross production" should be defined as the gross sales price of the product as it is extracted from the land without deducting costs of extraction, less costs of treatment, transportation, and sale, if sale occurs subsequent to such treatment or transportation.

9) All mining claims or twenty-acre subdivisions of land which are contiguous and which are an integral part of a p roducing unit should be assessed as part of the unit according to the production therefrom, and no other land should be so included, provided that no mining claim or twenty-acre subdivision of land should be included as part of a producing unit unless the product was extracted from or transported through or across such mining claim or subdivision, or unless some essential phase of the production was conducted upon or in such mining claim or subdivision.

10) The assessed valuation of each producing unit of extractive land should be the net proceeds from production during the year preceding the year of assessment, provided, however, that no assessed valuation of a producing unit of extractive land should be less than one-tenth of the gross production during the year preceding the year of assessment.

11) The term "net proceeds" should be defined as the gross production less the costs of extraction.

12) Prior to the first day of May in each year, the owner of each producing unit of extractive land should be required to file or cause to be filed with the assessor of the county in which such land is situated an annual statement of production for the year ending with the 31st day of December preceding the assessment date on a form prescribed by the Colorado tax commission, subject to the same penalties for failure to file, or for filing of an erroneous statement, as is provided for failure to file a schedule of personal property.

13) The Colorado tax commission should be authorized and required to prescribe the form of such annual statement of production, and such regulations concerning accounting for and reporting income and costs as are necessary to obtain equitable and uniform assessments.

14) Possessory rights, leasehold interests in public lands, and severed mineral rights should be subject to assessment as producing units of extractive land.

15) Lands, possessory rights and severed mineral rights which are classified for purposes of assessment as extractive lands because of the potential value of future extractive production therefrom should be assessed for a minimum of $1.00 per acre, but in no event for a greater proportion of the average market value of similar lands than is assessed against other classes of property.

16) If lands which are classified for purposes of assessment as extractive lands, whether producing or not, have in addition a use which is either agricultural or situs in nature, the value of such additional use should be taken into consideration in assessing such land.

near to an equitable solution as can be achieved within the framework of a property tax.

However, if the net proceeds of a mine is an equitable basis of assessment, it seems inequitable to assess a mine at one-fourth of its gross proceeds when the net proceeds is less than that amount. It is possible for a mine to be operated at a loss, indicating the possibility that it has no economic value. Yet its owner has to pay taxes on one-fourth the gross market value of the ore at the mine entrance, which can be a very large assessment.

If it is equitable to assess the value of a mineral deposit only once in its lifetime for its full value, then is it equitable to assess non-producing mining claims, year after year, for an amount which is more than their average market value? Perhaps, all non-producing mineral lands should be assessed for only a nominal amount for the privilege of ownership.

Findings and Conclusions

1) The full cash value of extractive land cannot be appraised. It depends upon the market value of the product which may be extracted, which is an unknown quantity, less the cost of extracting the product another unknown quantity. These values can be known only after the product is extracted.

2) Market value of extractive lands is an inadequate guide for the assessment of such land. Sales of such land are infrequent. Furthermore, even though the market value of one unit of extractive land may be known, it is impossible to determine the likely market value of others by comparison.

3) Therefore, the only feasible method of determining the value of the land is on the basis of actual production from it, as such production occurs.

4) Since the value of such land is depletable, the value of the production should be assessed only once, as it occurs.

5) No more equitable basis of assessment can be suggested at this time than the net proceeds of production during the year preceding the assessment.

6) For purposes of assessment, extractive land should be defined as that land which derives its value principally by the extraction or removal of products, not agricultural in nature, from it, either actual or potential.

7) All extractive lands forming a part of a producing unit should, if gross production from such unit during the year preceding the year of assessment was in excess of one thousand dollars, be assessed according to the production during such year preceding the year of assessment.

VII

THE ASSESSMENT OF SITUS LAND

Situs land, as the term is used herein, may be defined as that land which is neither agricultural nor extractive. It does not derive its value from either the production of agricultural products or the grazing of livestock or from the extraction from it of any products of the earth. Its value is derived from the use of its surface as the location or situs for buildings, or for activities which are neither agricultural nor extractive in nature.

The total 1958 assessed valuation of situs lands for the state was $351,576,136. This represented 10.7 per cent of the total assessed valuation of the state, and 15.1 per cent of the total valuation of real property. Table VII shows, for each county, the total assessed valuation of this class of land, and its relative importance in relation to the total valuation of real property. Table VIII shows the total 1958 assessed valuations of various classes of situs lands as reported to the tax commission by the county assessors.

Constitutional and Statutory Provisions

There are no constitutional or statutory provisions relating specifically to this class of land.

Tax Commission Policy

Tax Commission policy for the assessment of this class of land is set forth in section B of the Assessors' Real Estate Appraisal Manual. That section calls for assessing this class of property at forty per cent of average market value. In determining average market value, if improvements are situated on the land, land and improvements are appraised as a unit. Attention may be given to rental value, sales of comparable property, income produced by the unit, and any other factors that may influence value. Once the unit value is determined, the reproduction cost of the buildings is deducted to arrive at the value of the land.

Local committees are formed in each community composed of people familiar with urban land values. With the aid of the assessor, the committee divides the community into economic areas of like use. Each area is considered by itself. The lot or parcel in each area having the greatest value is selected and designated as a 100 per cent value lot or parcel.

In selecting the 100 per cent value lot in each area, numerous factors are considered. For commercial areas important factors are pedestrian and vehicular traffic passing the location, nearness and adequacy of parking facilities, volume of business, etc. In residential areas important factors considered are: type of street; sidewalks; utility services; terrain; proximity to schools, churches, shopping centers, public transportation and recreational facilities; traffic patterns; quality of improvements in the neighborhood; the demand for property in the neighborhood; and the proximity of non-conforming uses such as factories, stockyards, railroads, airports and unsatisfactory drainage.

17) The assessment on a producing unit of extractive land should not be divided among partial interests in such producing unit, but such producing unit should be assessed as one unit.

18) If a producing unit of extractive land lies in more than one county, an assessment of such producing unit should be made jointly by the assessors of such counties, and such assessment should be divided among such counties in proportion to the number of acres of such producing unit lying within each county.

19) Such legislation as is needed to implement the foregoing conclusions should be enacted.

TABLE VIII

1958 ASSESSED VALUATION OF SITUS LAND FOR STATE
by Classes as Reported to the State Tax Commission

Class	Assessed Valuation	Per cent of Total Situs Land Valuation
Town and city lots	$326,103,928	92.7
Suburban tracts	16,962,970	4.8
Mountain home sites	2,328,065	0.7
Other land not classified	5,473,458	1.8
Total	$350,868,421	100.0

Once the top value, or 100 per cent lot, is determined, all other parcels are assigned percentage designations in relation to it. In commercial areas the designations are generally made for each lot; in residential areas percentage designations are generally made for each block.

When the committee has developed a pattern of relative values, the assessor, with tax commission assistance and supervision, studies sales, income, and other information that is available, and determines a market value for the 100 per cent lots. The assessed valuations for these lots are set at 40 per cent of market value in each area. These lot valuations are then converted to valuations per front foot for ease in applying them to premises having varying amounts of frontage on the street.

Then, in such areas, all lots are assessed in accordance with their percentage designations. If the assessed valuation of a 100 per cent lot in a given area is $12.00 per front foot, a 60 per cent lot is assessed at $7.20 per front foot for the number of front feet in the lot.

This fairly simple method of applying valuations for lots is followed throughout for all lots of a standard shape and depth. Adjustments are made for lots which vary from the standard. For instance, if the typical lots in an area are 125 feet deep, but in some blocks the lots are only 100 feet deep, the 100-foot lots are less valuable than the 125-foot lots. Ownership may be divided, one person owning the front 75 feet of the lot, and another the rear 50 feet. In this case, the valuation of the lot must be divided between the two owners.

TABLE VII

1958 ASSESSED VALUATIONS OF SITUS LAND BY COUNTIES

County	Assessed Valuation	Per Cent*	County	Assessed Valuation	Per Cent*
Adams	$ 11,646,350	11%	Lake	$ 419,735	2%
Alamosa	701,485	8	La Plata	3,335,985	15
Arapahoe	19,793,730	17	Larimer	10,371,110	15
Archuleta	142,621	5	Las Animas	2,237,880	13
Baca	548,455	5	Lincoln	372,520	3
Bent	371,721	4	Logan	2,256,785	5
Boulder	13,437,230	15	Mesa	6,888,170	13
Chaffee	1,076,100	13	Mineral	40,660	4
Cheyenne	116,945	1	Moffat	632,260	5
Clear Creek	654,860	16	Montezuma	841,560	9
Conejos	232,105	4	Montrose	1,020,085	6
Costilla	121,815	4	Morgan	1,815,630	4
Crowley	181,110	4	Otero	2,147,680	8
Custer	55,924	2	Ouray	116,260	4
Delta	1,251,045	9	Park	739,885	14
Denver	189,721,390	25	Phillips	344,460	3
Dolores	98,755	3	Pitkin	636,180	11
Douglas	434,730	6	Prowers	1,166,150	6
Eagle	165,405	3	Pueblo	15,156,290	14
Elbert	50,195	- 1	Rio Blanco	429,660	- 1
El Paso	21,932,400	16	Rio Grande	991,426	7
Fremont	1,847,095	10	Routt	555,280	4
Garfield	1,324,830	9	Saguache	217,050	3
Gilpin	128,575	7	San Juan	93,781	7
Grand	670,290	10	San Miguel	88,400	2
Gunnison	529,280	6	Sedgwick	292,470	3
Hinsdale	68,495	7	Summit	51,860	2
Huerfano	646,715	11	Teller	412,640	10
Jackson	65,003	1	Washington	253,005	- 1
Jefferson	21,646,070	15	Weld	6,279,360	6
Kiowa	141,890	2	Yuma	444,360	3
Kit Carson	417,230	3			

* Per cent of total assessed valuation of real property in county.

Such adjustments would be simple if the value of a lot were uniform for its full length. However, it is a well established principle that the front portion of a lot is more valuable than the rear portion. Fortunately, realtors, professional appraisers, and others who have been interested in real estate values, have reached general agreement concerning the relative values of lots of varying depths. Standard tables of depth factors have been developed by which a front-foot value of a lot of standard depth can be converted to a front-foot value for a lot of greater or lesser depth. The same tables can be used for dividing the value from front to back for various portions of the lot. Such a table is included in the Appraisal Manual. A portion of one of the tables used is included on the following page as Table IX for illustration, and the example following it demonstrates its use.

There are various other factors which influence lot valuations and which are recognized in assessing individual lots. In some areas a corner lot is more valuable than a lot in the center of the block. Lots which are not rectangular in shape also constitute a problem in applying front-foot values. These problems are complex and no attempt will be made to explain them. The appraisal manual contains instructions, tables and formulae which are commonly used by professional appraisers, and represent the best methods of appraisal available.

The assessment of situs land other than town and city lots, such as suburban tracts, rural commercial and industrial sites, and mountain home sites, is not dealt with in the manual in as much detail. However, the same principles apply. Market value is the principal guide. Value varies according to the desirability of the site for the use to which it is put. Frontage upon a street, highway or road affects the value.

The principles of appraisal which are incorporated into the manual for the assessment of this class of land are commonly accepted principles. The methods prescribed, therefore, if properly used, should produce good results in terms of assessed valuation.

Assessment Practice

Actual practice in the assessment of situs land is extremely difficult to analyze because of the extreme variations within this class of land throughout the state. There are metropolitan areas, regional trade centers, local market areas, towns, villages, hamlets, ghost towns, and near-ghost towns. Some areas are in a state of explosive expansion, others are static, and others are experiencing an economic decline. In some counties the assessment of situs land is a major problem; in others it is a very minor one.

It has been difficult to determine precisely what was done during the reappraisal program on this class of property. There have been many assessors replaced since 1952, and the new ones do not know what procedure was followed in setting up the present schedule of lot valuations. However, the schedule of valuations in use in each county has been examined, and any changes which have been made since 1952 have been noted.

TABLE IX

RESIDENTIAL LAND DEPTH FACTORS

Depth	Factor	Depth	Factor
5	.13	115	.97
10	.23	116 - 134	1.00
15	.30	135 - 144	1.03
20	.37	145 - 154	1.05
25	.44	155 - 164	1.07
30	.49	165 - 174	1.08
35	.54	175 - 184	1.09
40	.59	185 - 199	1.10
45	.63	200 - 244	1.12
50	.66	225 - 249	1.14
55	.70	250 - 274	1.16
60	.73	275 - 300	1.18
65	.76	301 - 350	1.19
70	.79	351 - 400	1.20
75	.81	401 - 450	1.21
80	.83	451 - 500	1.22
85	.85	501 - 600	1.23
90	.87	601 - 700	1.24
95	.89	701 - 800	1.25
100	.92	801 - 900	1.26
105	.94	901 - 1000	1.27
110	.95	1001 - 1200	1.28

Standard depth of lots is 125 feet. The valuation for such standard lot is $12.00 per front foot. A lot having a depth of only 100 feet would have a valuation of $11.04 per front foot (12.00 x .92). A lot having a depth of 150 feet would have a valuation of $12.60 per front foot (12.00 x 1.05).

In general, it appears that in most counties the procedure set forth in the manual was closely followed. In the large population centers, a very thorough study was made of lot values. In Denver, for instance, careful studies of pedestrian traffic in the main business district were made. Hundreds of sales were analyzed. The automobile traffic pattern was considered. The effect of zoning regulations was evaluated.

In smaller centers of population, the problem was less complex and the methods employed were less extensive and involved. In most communities of one thousand population and over, the grading of lots percentage-wise as set forth in the manual was followed. The exact procedure varied according to local problems.

In smaller communities, it was typical that little time was spent on the problem. Little variation was made in lot values in very small towns, except between the major classifications of residential and commercial. Therefore, flat valuations per lot were adopted for each class, which seemed to be reasonable with reference to meager sales information, and then valuations were applied uniformly, with individual adjustments as seemed equitable to the assessor.

As in the case of other classes of property, there were a few counties in which nothing was done. In one county, in particular, having one of the larger cities of the state, no change in lot values was made in 1952. The assessor resisted change and refused to put into effect some phases of the reappraisal program, including the reappraisal of town and city lots. Later, a new assessor was elected, the reappraisal of lots, according to manual requirements, was undertaken and new valuations were used in 1957.

It would appear, generally, that the appraisal of situs land during the reappraisal program was reasonably good. However, whether the present assessments of this class of land are still good is another question - that is, whether valuations have been adjusted to reflect changing conditions. The composition of the class of situs land is subject to tremendous change annually. Urban and suburban expansion annually adds tremendous numbers of lots and tracts to this class from land which previously was agricultural. The same trend produces great increases in the value of existing situs land. Mountain home sites increase in great numbers in some areas. Value relationships change within cities.

In Denver, for example, the construction of many new buildings has caused a shift in the point of greatest land value from the corner of Sixteenth and Stout Streets to a point closer to Broadway, a point which has not been determined exactly. Rapid increases in population have caused an increase in the amount of land used for commercial purposes, and in the value of such land. Creation of new shopping centers has added value to areas in which they are created, and has either drawn value away from the older commercial districts, or retarded the increase of value in those districts. Creation of new subdivisions brings new land into this class. The progressive development of such subdivisions adds value to the land.

Problems resulting from urban expansion are present in the Denver metropolitan area, involving four counties, as well as Boulder, Colorado Springs, Pueblo, Grand Junction, Cortez, Durango, and Aspen, and the entirely new towns of Thornton and Broomfield Heights, and to a lesser degree in many more towns and cities about the state. Such expansion, where encountered, not only presents the problem of adding more and more land to the class, but also the one of adjusting the valuations on lands previously assessed. This is necessary to maintain constant equalization of valuations in this class with those in other classes.

A problem of a somewhat different nature is found where, instead of urban expansion, there is urban decline. Economic trends in some areas are such that values are decreasing, rather than increasing. Many towns, whose economy depends upon mining have experienced an economic decline or collapse. This situation has been especially true of those towns dependent upon coal mining. The constant improvement of automotive transportation, with ever-increasing consolidation of farm units, has resulted in a shift of business and population from community centers to regional centers. As a result, many small towns dependent upon an agricultural economy have experienced decline, rather than expansion, and land values have been affected accordingly.

Even with the 1941 standard of assessment, valuations of situs lands, once established, cannot remain static. The increases in value referred to in preceding paragraphs are not due to price inflation alone. They are due principally to a change of use, and an increased value of use. Land used as grazing land in 1941 cannot be assessed at the same value in 1958, if it has since become a fully-developed residential subdivision. It cannot have the same assessment as in 1941 if it has since become the site of a factory, or a shopping center. For this reason, assessments on this land must be constantly adjusted to bear a given relationship to current market value.

The tax commission prescribed forty per cent of market value as the standard for assessment of situs land. This relationship was applied in the initial reappraisal effective in 1952. Has it been maintained since? The best answer, obviously, may be found in the results of the sales ratio study just completed. The sales ratios developed for two classes of property, namely, vacant urban lands, and miscellaneous rural land having no improvements, provide the answer.

The state-wide average sales ratio for vacant urban lands is 21.4 per cent. No county had a ratio in this class above 66.7 per cent. The ratio varied downward to as low as 12.3 per cent in one county. These ratios of 1957 assessed valuations to 1957 - 1958 sales prices are definitely lower than the 40 per cent prescribed by the tax commission in all but six counties. They are also lower than the ratios for most other classes of real estate.

The ratios for the class "miscellaneous rural lands having no improvements" are less definitive. This class may contain some lands other than situs land. However, it is principally of that class. The same low ratio appears here. The state-wide average is 16.7 per cent. The lowest county ratio is 6.8 per cent, and the highest is 60.6 per cent. Only three counties have ratios above 40 per cent.

Actually, there is no other way to compare the levels of assessment from one county to another on situs land than by sales ratio, with one exception. There is no way of judging relative values between widely separated urban areas except with reference to sales and the sales ratio study has provided this comparison.

The one exception referred to is found in the Denver metropolitan area. Here, county lines pass through urban areas. The City and County of Denver is surrounded by the counties of Adams, Arapahoe and Jefferson, and the urban area extends from Denver into each of the other counties. Except at some points, it is reasonable to assume that land values inside Denver should be little higher than those across the county line. A study of assessed valuations along this county line shows the following comparison.

Typical Valuations per Front Foot at Same Point on County Line

Residential Lots			Commercial Lots		
In Neighboring County		In Denver	In Neighboring County		In Denver
Adams	$ 7.44	$12.00	Adams	$70.00	$80.00
Arapahoe	8.00	12.00	Arapahoe	20.00	70.00
Jefferson	5.20	12.80	Jefferson	28.00	32.00

The only object in presenting these comparisons is to show that there is a difference in valuation between properties separated only by a street and an imaginary boundary line. Such differences indicate that an adjustment is needed, possibly on both sides of the line, to achieve equalization. Where an obvious difference in value because of use existed at the county line, no comparison was attempted. Examples of such cases are: when the use of the land was commercial on one side and residential on the other; and when land was fully developed on one side, and less fully developed on the other.

These comparisons are borne out by the sales ratio study, which shows the following county-wide sales ratios for vacant urban land in the four counties, as follows: Adams County, 17.9; Arapahoe County, 21.5; City and County of Denver, 24.2; and Jefferson County, 14.9. However, these ratio figures, again, merely show that there is a difference in each county, taken as a whole. There can be no direct comparison of them with the front-foot valuations at the county line areas. A study of sales occurring at or near the line shows the following comparison.

Adams County	12.4%	compared with Denver	17.4%
Arapahoe County	15.2%	compared with Denver	26.5%
Jefferson County	19.3%	compared with Denver	26.1%

Assuming that lot valuations were equalized within the class, in 1952, the main reason there is now such a wide variation in such valuations is that valuations have not been adjusted since 1952 equally well in all counties to reflect the changing pattern of lot values. The task of maintaining current equalization of lot valuations is a tremendous one when the assessor is confronted with a fluid situation of urban expansion. In many areas the rapid

creation and development of new subdivisions has confronted assessors with a difficult problem. Immediately after land has been properly assessed as agricultural land, it is purchased for residential development. Therefore, for the next assessment, the assessor must consider what the developer has paid for the land. Then the developer subdivides the land, files a plat, and begins selling lots. The assessor must then pick up the subdivision as a matter of record, and consider what valuation should be put upon lots, some of which have had no actual change other than the filing of a plat. Then streets and alleys are built, curbs and gutters, water and sewer lines are installed, and must be reflected in the assessed valuation. Finally, houses are erected upon the lots and they are purchased by individual home owners and another valuation must be considered.

This transition has been so rapid that it has been impossible for the assessors to keep completely current with their assessed valuations. Furthermore, even though an assessment may truly reflect the value of the lot on the official assessment date, the lot may have been sold at a higher value before the assessment is actually made. A comparison of an assessment properly made on the basis of one set of circumstances with a sale based on an entirely different set of circumstances is misleading. Therefore, sales of this type were not used in determining the sales ratios.

Some assessors have resorted to the expedient of using what are commonly referred to as "developer's rates". A flat valuation of perhaps $100 per lot has been used in new subdivisions until such time as all the lots have been fully developed and houses erected upon them, at which time they are assessed in relation to market value. Others have developed a schedule of progressively greater valuations to be used uniformly at different stages of development of the subdivision.

Another problem confronting the assessor is that of the assessment of land adjoining areas of urban expansion. The expansion of an urban area tends to influence the market value of near-by land which is not currently being developed, and some land which has not been included in any plans for development. Speculators buy such land for a much higher price than is justified. Should this land be assessed for a greater amount because it has been sold for a greater amount? Also, should adjoining land which has not been sold and which is still used for strictly agricultural purposes also be assessed for a greater amount simply because of potential value of the use if changed at a later date?

Findings and Conclusions

1) The system for the appraisal of situs lands contained in the Assessor's Appraisal Manual represents the most commonly accepted appraisal practice for this class of property, and, if properly and thoroughly applied, should produce satisfactory assessments.

2) For purposes of assessment, situs land should be defined as that land which is neither agricultural nor extractive, and which derives its value from the use of its surface as the location or situs for buildings, or for activities which are neither agricultural nor extractive in nature, or from the intention that it shall be put to such use.

3) Situs land should be assessed according to its value for use as the site of buildings or as the site of an activity which is neither agricultural nor extractive in nature.

4) The value for such use should be determined by the average market value of similar properties similarly situated.

5) For purposes of such assessment, situs lands should be classified within each area of similar use according to any and all factors which influence the value of their use.

6) No land should be assessed as situs land which is used solely and exclusively for agricultural or extractive purposes, provided that such land forms a part of an economic unit for agricultural or extractive purposes.

7) Such legislation as is needed to implement the foregoing conclusions should be enacted.

VIII

THE ASSESSMENT OF IMPROVEMENTS

Improvements, as a class of property for purposes of assessment, includes all structures built upon land or affixed thereto, and all appliances affixed to said structures. It also includes water rights, by statutory definition.

The assessed valuation of this class of property is a major part of the total assessed valuation of the state. The total 1958 assessed valuation of this class of property was $1,518,659,854, which is 46.3 per cent of the total assessed valuation of all property in the state. Table X shows, for each county, the total assessed valuation of improvements, and its relative importance in relation to the total valuation of real property. Table XI shows the total 1958 assessed valuations of various classes of improvements as reported to the tax commission by the county assessors.

Constitutional and Statutory Provisions

There are no constitutional provisions relating to assessment of improvements. Statutory provisions relating specifically to the assessment of improvements are as follows:

"Improvements shall be listed and valued separate and apart from land, except lands which are used for agricultural purposes, which agricultural lands shall be valued as a unit with the improvements and water rights located upon them." 1

"The term 'improvements' includes all water rights, buildings, structures, fixtures and fences erected upon or affixed to land, whether or not title to said land has been acquired."[2]

Tax Commission Policy

Tax commission policy for the assessment of improvements is contained in the Assessor's Real Estate Appraisal Manual, hereafter referred to as the manual, published by the tax commission. This manual, which was prepared by the Department of Re-appraisal during the re-appraisal program, contains instructions for appraising improvements, as well as land, a system of building classification, a pricing section, and instructions and tables for the allowance of depreciation and obsolescence.

The process of assessing improvements is one of mass or wholesale appraisal. Truly accurate appraisals can be made only by a detailed appraisal of an individual building. However, such an appraisal is not possible for assessment purposes because of the volume of property which must be appraised. A method is required which permits the best practical appraisal of all buildings by use of simple procedures within the limitations imposed by availability

1. C.R.S. 1953, Sec. 137-12-8.
2. C.R.S. 1953, Sec. 137-12-2(5).

TABLE X

1958 ASSESSED VALUATION OF IMPROVEMENTS BY COUNTY

County	Assessed Valuation	Per Cent*	County	Assessed Valuation	Per Cent*
Adams	$ 81,066,380	77%	Lake	$ 6,238,900	35%
Alamosa	5,628,516	63	La Plata	13,478,970	61
Arapahoe	94,331,120	81	Larimer	48,783,950	68
Archuleta	1,043,060	38	Las Animas	7,319,960	42
Baca	3,637,090	30	Lincoln	3,834,375	33
Bent	3,164,781	36	Logan	14,852,155	34
Boulder	68,423,870	75	Mesa	37,920,520	71
Chaffee	5,618,150	70	Mineral	533,399	59
Cheyenne	1,869,075	21	Moffat	4,633,340	38
Clear Creek	2,372,640	56	Montezuma	6,183,315	64
Conejos	2,303,885	36	Montrose	8,227,915	46
Costilla	1,393,295	42	Morgan	18,958,410	39
Crowley	1,772,135	37	Otero	17,089,325	68
Custer	940,530	40	Ouray	1,025,282	36
Delta	7,903,810	60	Park	2,223,605	41
Denver	574,351,790	75	Phillips	5,055,855	39
Dolores	1,676,250	46	Pitkin	4,163,330	72
Douglas	3,994,580	59	Prowers	8,134,550	45
Eagle	2,680,977	45	Pueblo	86,528,640	81
Elbert	2,502,705	33	Rio Blanco	3,221,945	5
El Paso	109,790,160	81	Rio Grande	6,706,753	50
Fremont	14,390,385	79	Routt	5,801,370	45
Garfield	7,988,900	56	Saguache	2,426,080	31
Gilpin	960,180	50	San Juan	433,069	31
Grand	4,657,715	68	San Miguel	1,528,600	31
Gunnison	4,585,865	54	Sedgwick	3,972,190	41
Hinsdale	521,010	55	Summit	1,399,865	43
Huerfano	3,263,300	57	Teller	2,394,150	59
Jackson	1,549,217	31	Washington	4,415,735	13
Jefferson	115,453,310	82	Weld	47,822,440	49
Kiowa	2,211,110	26	Yuma	5,835,040	35
Kit Carson	5,471,030	37			

* Per cent of total assessed valuation of real property in county.

TABLE XI

1958 ASSESSED VALUATION OF IMPROVEMENTS FOR STATE BY CLASSES AS REPORTED TO STATE TAX COMMISSION

Class of Improvements	Assessed Valuation	Per Cent of Total Valuation of Improvements
Improvements on Farms, Ranches and Rural Tracts	$149,236,268	9.8
Rural Commercial Improvements	44,663,620	2.9
Rural Industrial Improvements	76,693,751	5.1
Improvements on Public Land	3,057,227	0.2
Improvements on Mountain Home Sites	7,415,364	0.5
Urban Residential Improvements	907,691,952	59.8
Urban Commercial Improvements	271,818,681	17.9
Urban Industrial Improvements	58,082,991	3.8
Total	$1,518,659,854	100.0

of manpower, budgets and physical equipment. The appraisal methods contained in the manual are designed to meet the requirements of efficient mass appraisal.

The appraisal system contained in the manual is based upon a classification of buildings according to functional use, type of material, and quality of material and workmanship. Buildings are classified into twenty-two functional classifications: five residential, eleven commercial, three industrial, and three farm. These are, in turn, divided into many sub-classes according to types of materials used (frame, brick, stone, structural steel, etc.) and grades of materials and workmanship.

The manual provides a set of base specifications for each class to be used in determining into which sub-class a building most nearly fits. These usually include specifications for foundations, floor, roof, exterior walls, interior finish, basement, attic, heating system, plumbing, wiring and other building items, such as fireplace, ventilation, fire protection and elevator.

In addition to the classification section of the manual, and supplementary to it, is a pricing section. In this section, unit costs are provided for use in calculating the reproduction cost of a building according to its classification and construction features. These are construction costs that prevailed in the year 1941. This section includes tables of base unit costs for each sub-class. These are in the form of costs per square foot of ground area, varying according to ground area, and number of stories. A medium grade residence of 1000 square feet on one floor has a cost of $3.70 per square foot, while one of 2000 square feet on one floor has a cost of $3.14 per square foot. Costs on the two buildings if they have 1½ stories would be $4.88 and $4.19, respectively; 2 stories, $5.53 and $4.76; 2½ stories $6.70 and $5.83. The use of these unit costs gives a base reproduction cost of a building, if it fits the specifications of a class reasonably close.

In addition, unit costs are provided for adding to or deducting from the base reproduction cost in cases where there are variations of the building from the base specifications of the class. Such adjustments are provided for variations from class standards in foundation, exterior walls, roof pitch, roof framing, roof surface, basement, attic, floors, interior finish, heating systems, plumbing fixtures, lighting, etc. Costs per square foot are provided for the addition of porches, terraces and other such additions to the main building. For instance, a one-family residence classified as 1.3, but varying from the base specifications of that class in certain respects, may have the following additions and deductions:

For insulated walls	an addition
For asphalt shingle roof instead of wood	a deduction
For low-pitch roof	a deduction
For a partial basement	a deduction of full basement and addition of partial basement

For lack of tile floor in bath	a deduction
For hot water instead of warm air furnace	a deduction of warm air furnace and addition of hot water
For any variation in plumbing fixtures from three-fixture bath	addition or deduction of fixtures
For a fireplace	an addition

The appraisal procedure outlined in the manual is as follows. The first step is the preparation of a property card upon which are recorded the legal description of the property and the name of its owner. The subject building is inspected, measured, and photographed. A ground floor diagram of the building, showing dimensions, and a description of all physical features pertinent to the appraisal are entered on the card. The building is classified according to the manual, and all pertinent variations from class are noted. The area of the building and any other units of computation are computed. Unit costs are taken from the manual, and the base cost of the building is computed. Then all additions and deductions are computed, added and deducted. The result is the base reproduction cost of the building at the 1941 level of construction costs.

The base reproduction cost is then discounted for any loss of value resulting from aging, wear and tear, obsolescence, loss of utility, and economic conditions which affect its value. The major item of discount is normal depreciation. Normal depreciation includes the normal loss of value due to aging, normal wear and tear with typical maintenance, and architectural obsolescence. Tables are provided in the manual for use in calculating this depreciation. The rate of depreciation varies according to the classification of the building and its age.

Tax commission policy concerning the discounting of base reproduction cost for various reasons is: 1) that no more than sixty per cent reduction from base reproduction cost be allowed for normal depreciation; 2) that no more than eighty per cent reduction be allowed for a combination of all causes, so long as the building is fully utilized; 3) that no more than ninety per cent total reduction be allowed so long as the building remains standing; 4) that no uniform blanket percentages of reduction applying to all buildings in a county be allowed; and 5) that depreciation must be calculated and allowed at least once in every five years, provided that a complete inspection of the building is made at the time of depreciation.

In addition to allowance for normal depreciation, the assessor may allow for abnormally poor physical condition. That is, if the building has deteriorated more in physical condition than is normal for a house of its age with typical maintenance and care, the assessor may reduce the valuation at his discretion.

Normal obsolescence of architectural style which comes with age is a factor which is included in the normal depreciation percentages. Other forms of obsolescence or loss of value through loss of utility may be

allowed. Examples of such loss are the loss in value of a horse barn after a farm is completely mechanized, loss in value of any building which no longer has any use where it is situated, and loss in value of portions of mercantile buildings which are no longer required for use.

Loss in market value which occurs because of the economic condition of the area in which a building is located may also be recognized and allowance made therefor. Such allowances usually are justifiable in the slum areas of cities, or in small towns which have experienced economic decline. Since such loss of value may vary with different buildings, the use of blanket uniform discount allowances applied to all improvements in a county, or in a class, is not permitted. It is possible that a similar loss of value may occur for all similar buildings within a given area, and that therefore, a uniform percentage may be allowed for all of them. However, conditions justifying such an allowance are usually limited to definite areas within a city, or to particular small communities within a county, and not to an entire city or an entire county. Also a different percentage of reduction may be justified for commercial buildings than for residential buildings, for expensive buildings than for inexpensive buildings.

Assessment Practice

With the use of the manual provided by the tax commission, remarkable progress has been made by all assessors in the assessment of improvements. A comprehensive inventory of buildings has been taken and made a permanent record. Detailed data concerning all buildings are a matter of record. Appraisals have been made according to a definite system (a revolutionary development). It is evident that assessments are much better than before.

However, a careful investigation of assessment practices, inspections of records and many buildings has shown that there is much lack of uniformity in the use of the manual by the assessors and their appraisers. This lack of uniformity results in differences in assessments on similar buildings in different counties. Some county assessors have adopted variations of the manual for their own use. Some of these are merely mechanical adaptations of the manual to provide more efficient use and produce comparable results. Some variations are discussed in the following paragraphs.

The official manual provides that for a particular grade of one-family dwelling the cost of a full basement is included in the base cost of the dwelling. If a particular dwelling has no basement, the cost of the full basement must be deducted. If it has only a partial basement, the cost of the full basement must be deducted and the cost of the partial basement added. In some counties, where it is found that most houses of this class do not have full basements, new cost tables have been constructed wherein the cost of the full basement has been removed from the base cost of the house. Then the cost of whatever basement may be present in a particular house is added. This procedure saves many man-hours of labor and produces identical results.

The official manual may provide, for a particular class of house, that a particular type of heating system is included in the base cost. If a

different type is actually present, there must be both a deduction from and an addition to the base cost. In some counties, the combinations of costs have been rearranged to more nearly match the type of house found there and thereby save labor, without affecting the accuracy of the results.

In order to save clerical work, some counties have constructed from the unit cost tables what might be referred to as tables of valuation. In using the manual, the area of the house and of each item of addition or deduction must be multiplied by a unit cost taken from the pricing section of the manual For instance, if the pricing section shows that a house having 1000 square feet of ground area should be priced at a unit cost of $4.50 per square foot, the computer must multiply 1000 square feet by $4.50 every time he encounters this combination. Valuation tables, on the other hand, make it possible to determine directly by reference to the tables that the 1000 square-foot house has a base cost of $4,500, thus saving the computation.

One county has adopted a completely new handbook for its own use, representing a simplification of the official manual, but based upon it. Although this handbook produces reproduction costs similar to those produced by the official manual, the results are not identical. Particularly for commercial type buildings, the reproduction costs may vary considerably from those which are obtained by using the official manual. The chief reason for this adaptation was the need for a reduction in the amount of work involved in appraising a huge volume of buildings by eliminating many of the additions and deductions contained in the official manual, as well as by providing more efficient methods of computation. In general, the differences in results tend to be minor, although some are quite significant.

In mentioning this adaptation, no implication is intended that the county assessor is refusing to comply with tax commission policy, for the use of this handbook was accepted by the tax commission for use in this particular county. Also it is not intended to imply that this handbook is either better or worse than the official manual, but only that it is different.

One county has used the manual in the appraisal of only part of its improvements. Appraisals of improvements in the county seat made prior to the re-appraisal program by a system previously in use have not been changed. This system is based upon cubic feet as the unit of computation and upon a system of classification different from that in the manual.

In classifying buildings, there is a lack of uniformity from county to county. Similar or identical dwellings, for instance, may be classified as $1.2\frac{1}{2}$, 1.3, and $1.3\frac{1}{2}$ respectively in each of three counties, each of the three classes representing different quality of materials and workmanship. Such a variation was demonstrated within the past year by assessors themselves in four adjoining counties. In a comparison of similar super-market buildings in five different counties, the appraisals have been found to be significantly different in each county. Such mis-classification of buildings can have a significant effect upon the comparative valuations. Under-classification of a dwelling by one-half class can reduce its valuation by as much as twelve and one-half per cent; under-classification by a full class can reduce its valuation by twenty-five per cent.

In other ways than by mis-classification, many assessors are mis-using the manual, deliberately in some cases, unintentionally in others. Many of the minor adjustments for variations in roof, interior finish, etc., are omitted in order to save work. There are divergent interpretations of what constitutes a one and one-half story house as compared with a one-story house with finished attic on the one hand, or a two-story house on the other. Some assessors have mis-interpreted the use of the heating cost tables in various ways. Some assessors are using a cost per fixture or per combination of fixtures for plumbing adjustments when the manual calls for a cost per square foot of ground area of the building.

Some assessors, as a matter of policy, have adopted the use of lower than manual costs on some items of construction, because the manual costs are high in relation to current costs, the costs in question having been subject to little or no inflation since 1941. Some of the items treated in this manner are asphalt, vinyl and rubber tile, asphalt paving, fluorescent lighting and garbage disposal units. In doing this, they overlook the fact that there are other items of cost which are relatively low in comparison with current costs and should, by the same token, be increased.

There is a great variation in practice in discounting reproduction costs for depreciation and obsolescence. Under tax commission policy, assessors were required to allow five years of normal depreciation in 1957, after inspecting buildings to determine that appraisals were currently correct. Investigation has developed the following information concerning compliance with this requirement:

a) thirty-seven counties did so in 1957, claiming that a complete inspection was made;

b) five counties did so in 1957, admitting that only a partial inspection was made;

c) five counties did so in 1957 for the improvements in one-fifth of their counties as part of a five-year program;

d) two counties did so in 1957 on urban improvements only;

e) four counties did so in 1956, claiming complete inspection;

f) one county did so in 1956 on buildings less than five years old, only;

g) two counties used "observed" depreciation rather than using the depreciation tables provided in the manual;

h) one county deducted a flat ten per cent from the existing valuation of all buildings, except those which had already received maximum depreciation, and except those built within the last five years;

i) six counties allowed no further depreciation in 1957.

About twenty counties have allowed total normal depreciation beyond the sixty per cent maximum prescribed by the tax commission. They attempt to justify doing so on the ground that the buildings concerned are entitled to the extra reduction in valuation because of the influence of other factors, such as excessively poor physical condition, or various types of obsolescence. This is not good assessment practice. The sixty per cent maximum rule should be adhered to and any additional reduction in valuation should be for reasons specified in each case, and at a percentage determined by careful analysis of specific factors.

In the use of various adjustments, for reasons other than age, there is no uniform practice. Some counties have adopted the use of uniform, county-wide percentage allowances. Two counties allow 30 per cent off valuations on all farm and ranch improvements. One county allows 25 per cent off all improvements. Two counties allow 15 per cent and 20 per cent respectively off all new buildings. These are all practices which have definitely been determined to be in use in these counties. There may be other such practices that have not been discovered. Justification for such wholesale reductions is questionable, although many of the properties may be entitled to reductions of various percentages on an individual basis.

On the other hand, there are local conditions in some counties which would likely justify some reductions of valuations, but which are not being recognized by assessors--localities where market values are greatly depressed by local economic circumstances; types of buildings that have lost value through loss of utility, and so forth.

Sales-Ratio Analysis

An analysis of sales-ratio results with respect to assessments on improvements leads to the following conclusions:

1) There are significant variations in ratios for urban improvements between counties. Where such a difference exists between counties with similar economic conditions, where similar market values may be expected to prevail, a difference in assessment practice is indicated. Such differences result from divergent practices in the classification of buildings and in the use of allowances for depreciation and obsolescence. The assessed valuation on single family dwellings as a class represents a very significant part of the total assessment on improvements in the state. Therefore, a study of comparative ratios for this class of buildings should be indicative of the comparative levels of assessments on all buildings. The state average sales ratio on this class is 28.1 per cent. County ratios range from a low of 15.8 per cent to a high of 49.1 per cent.

Perhaps a better indication of the results of current appraisal practice may be found in the ratios for the more limited class of single family dwellings constructed from 1950 to 1957, inclusive. These appraisals have been made largely during the years since the mass re-appraisal was accomplished. For this class, the state average ratio is 31.8 per cent, somewhat higher than the ratio for single family dwellings of all ages. The county ratios for this class range from a low of 13.4 per cent to a high of 51.4

per cent. One county, in which there has been a blanket 25 per cent reduction of assessed valuations on improvements, has a ratio of 22.2 per cent for this class, which is 30 per cent less than the state average ratio. Four adjoining counties which have been shown to classify dwellings at different levels have ratios for this class of 34.7 per cent, 32.4 per cent, 31.7 per cent, and 28.7 per cent, respectively, in direct relation to their classification practices.

2) Where such differences exist between one county which is prosperous and one which is depressed, economically, the ratio being higher in the depressed county, it is indicated that in the depressed county there is justification for a percentage reduction in assessments to allow for economic loss of value. In some counties there are many factors operating to produce either a high ratio or a low ratio, and sometimes two factors may operate to cancel the respective effects of each. However, in seven counties where there is a high level of prosperity, accompanied by accelerated building activity, ratios for single family dwellings range from 15.8 per cent to 26.2 per cent. While other factors are likely operating in each of these counties, the inflated real estate values resulting from economic expansion undoubtedly have had an influence on the ratios. On the other hand, the seven counties having the highest ratios, from 31.1 per cent to 49.1 per cent, are counties in which at least a major part of the urban areas are suffering economic distress.

3) Variations in ratios are found to exist between urban communities within the same county. Comparison of these ratios with conditions known to exist in the counties indicates that there are economic losses of value in some depressed areas within counties which would justify reductions in assessed valuations which are not now being made. In one county where the ratio of assessments at the county seat is 23.6 per cent, the ratio at a small town known to be in economic distress is 48.5 per cent. In this county no allowance for this condition has been made by way of reduction of assessments in the small town. Numerous other such illustrations can be found.

In many counties where assessments in certain communities have been reduced because of economic conditions, such reductions are shown to be justified by the sales ratio results. Following are several examples where reductions have been made in certain towns not the county seat and the ratio is very nearly the same as for the county seat:

County Seat Ratio	Ratio, Other Town	Percentage of Reduction Allowed in Other Town
24.6	24.6	10%
26.3	26.1	10
35.8	35.2	30
27.3	28.0	10

In other counties where assessments in certain communities have been similarly reduced, sales ratio comparisons indicate that the reductions have been inadequate. Following are several examples of such situations:

County Seat Ratio	Ratio, Other Town	Percentage of Reduction Allowed in Other Town
27.3	68.8	20%
24.7	38.9	10
31.1	46.6	10
39.8	65.9	30
23.2	27.1	10

In another county where the assessor has allowed a discount for seasonal occupancy in two resort towns, the ratios in these towns are found to be 20.8 per cent and 20.3 per cent, respectively, while the ratio in the county seat is 25.0 per cent, and in other towns somewhat higher. This indicates that the discounts allowed in the resort towns were not justified.

4) Ratios of assessments on older dwellings tend to be lower than those of assessments on newer dwellings. Separate ratios were developed for assessments on dwellings within five separate age groupings. The age groupings and state average ratios for each are as follows:

a) Dwellings built during the 1950's 31.8%;

b) Dwellings built during the 1940's 29.1%;

c) Dwellings built during the 1930's 27.0%;

d) Dwellings built during the 1910's and 1920's 24.6%, and

e) Dwellings built prior to 1910 22.0%.

County assessors have been aware of this progressively lower level of assessment on older dwellings for several years. They have tended to blame the normal depreciation table which is in use for this result, claiming that the rate of depreciation is too rapid and that the maximum rate of depreciation of eighty per cent originally allowed during the re-appraisal program was too great for dwellings which had been maintained in reasonably good condition. An attempt at correction was made by the adoption of the rule that no more than sixty per cent normal depreciation be allowed. Yet the older dwellings still are assessed comparatively lower.

The use of a depreciation table that does not truly reflect comparative market values of dwellings of different ages may be a part of the cause for this comparative difference in assessed valuation. However, inspection of appraisals in many counties has led to the conclusion that there is at least one other factor contributing to the progressively lower ratios of valuations on older dwellings. There is a tendency among many appraisers to over-classify new dwellings because they are modern and attractive and to under-classify old dwellings because they are architecturally obsolete and unattractive in the eyes of the appraiser.

5) Ratios of assessments on commercial and industrial type improvements are, in general, higher than those for residential buildings. Table

XII shows the state average ratios for each of the three major classes of urban improvements and the average ratios of each county for the same classes.

In thirty-six counties ratios for commercial buildings are higher than those for residential buildings, and in twenty counties ratios for industrial buildings are higher than residential ratios. There are only fifteen counties where ratios for commercial buildings are lower than the ratios for residential buildings, and in only four counties are industrial ratios lower than those for residential.

This situation is probably the result of a combination of two factors. First, particularly in smaller communities where commercial buildings are not very elaborate, there has been a tendency on the part of inexperienced appraisers to over-classify commercial buildings. Second, various losses of value have not been adequately allowed for, especially in the case of older buildings. Many commercial buildings are in use today that have a much higher reproduction cost than a newer building would have which would be adequate to the needs of the person using the building. Therefore, the persons having a use for such buildings are not inclined to pay more for them than it would cost them to construct an adequate building, and as a result the market value of the older buildings is deflated in relation to their reproduction costs. Furthermore, with the shift of business away from older business centers and with the erection of more modern commercial buildings, many older buildings suffer an economic loss of value. This is true even in the larger cities.

Assessors seem to be reluctant to allow reductions from assessed valuations because of the losses of value experienced by commercial buildings. As a result, many commercial buildings are over-assessed with relation to their market value. In some counties, it would appear, however, that adequate allowances have been made, and in a few, that excessive allowances have been made.

A similar situation exists with reference to industrial buildings. However, it should be pointed out that most sales of industrial buildings are those of small industries, and that many sales are those of obsolete buildings which are being replaced by modern buildings. There have been insufficient sales of larger and more modern industrial buildings to provide any measure of the assessment levels for them.

Criticism of Appraisal Manual

Analysis of sales-ratio results shows that assessed valuations on improvements are not equalized, among counties, among different communities within the same county, among different classes of improvements, or with other classes of property. Analysis of actual practice among county assessors in the use of the appraisal manual has revealed that there is marked lack of uniformity in such use of the manual.

The lack of equalization is caused by a number of factors: 1) faults which may be found in the manual itself; and 2) lack of uniformity in its

TABLE XII

AVERAGE SALES RATIOS OF URBAN IMPROVEMENTS,
BY COUNTIES, AND BY CLASSES

County	Residential Improvements	Commercial Improvements	Industrial Improvements
Adams	29.9%	29.1%	35.0%
Alamosa	27.0	31.8	29.5
Arapahoe	29.1	40.3	38.1
Archuleta	28.8		
Baca	26.4		
Bent	30.2	53.7	
Boulder	30.5	29.7	22.0
Chaffee	25.8	30.9	71.2
Cheyenne	40.8		59.0
Clear Creek	15.8	22.4	
Conejos	36.5	27.2	151.1
Costilla	49.1		
Crowley	24.0	180.4	
Custer	22.9	69.0	
Delta	26.6	32.6	
Denver	30.4	35.1	39.5
Dolores	30.5	41.8	
Douglas	25.3	18.0	
Eagle	31.1	52.1	
Elbert	24.2	203.9	
El Paso	23.4	21.1	25.6
Fremont	22.4	42.3	
Garfield	24.6	23.8	
Gilpin	19.0	25.8	
Grand	27.0	24.3	38.4
Gunnison	24.5	28.6	
*Hinsdale			
Huerfano	29.9	22.7	
Jackson	23.5	52.0	
Jefferson	26.2	25.3	19.7
Kiowa	29.0	24.5	
Kit Carson	26.8	49.6	55.4
*Lake			
LaPlata	22.4	26.2	
Larimer	27.5	29.5	33.3
Las Animas	28.8	70.8	
Lincoln	23.7	21.3	
Logan	24.7	35.3	43.3
Mesa	27.4	22.5	31.2
*Mineral			
Moffat	23.2	31.8	29.6

TABLE XII (Concluded)

County	Residential Improvements	Commercial Improvements	Industrial Improvements
Montezuma	23.6%	24.0%	
Montrose	25.8	30.9	24.9
Morgan	29.4	38.8	33.6
Otero	31.0	83.4	49.4
*Ouray			
Park	31.1	17.0	
Phillips	23.6	41.7	
Pitkin	19.4	20.8	
Prowers	29.4	36.3	
Pueblo	23.8	29.3	31.5
Rio Blanco	26.9	69.0	92.0
Rio Grande	32.8	31.0	17.8
Routt	39.2	41.7	59.7
Saguache	29.3	40.0	
*San Juan			
*San Miguel			
Sedgwick	29.3		
Summit	29.8		
Teller	24.0	21.3	
Washington	26.4	42.5	
Weld	28.2	37.6	39.9
Yuma	24.6	26.1	
State Averages	28.1	32.0	37.1

* No classified ratios due to sparsity of sales. In all cases where no ratio is shown, no ratio was developed for the class due to sparsity of sales.

use. The lack of uniformity in use of the manual likewise has a number of causes: 1) lack of understanding of the use of the manual by assessing officers; 2) variable interpretations of the use of the manual, which is partly caused by a deficiency in the manual itself; and 3) ineffective instruction, supervision and enforcement by the tax commission.

In spite of the fact that part of the fault can be traced to misuse of the manual, it can be said that the manual in its present form, even if applied uniformly, will not produce equalized assessments. It can also be said that some of the divergent practices noted represent attempts of individual assessors to compensate for faults of the manual which are recognized by them.

The manual is over-complicated. It requires much attention to relatively unimportant details with respect to construction features, while completely overlooking equally important details. By so doing, it requires much more work on the part of appraisers and computers than should be necessary. The manual requires adjustments from base reproduction cost for variations in roof pitch, roof structure, roof surface, lack of tile floor in the bath, and many other variations from class specifications which result in very minor adjustments in assessed valuation. These adjustments represent refinements which would seem desirable, except that their use requires more labor than can be justified by the magnitude of the adjustments, and except for the fact that numerous variations from class which are equally important are completely ignored. Variations in the interior partitioning, many variations in type or quality of interior finish, presence or absence of storm windows, shutters, window screens, roof gutters, and so forth, are not subject to adjustment. Variations in cost per square foot of ground area for variations in ground floor plan are not recognized. An "L" or "T" shape or an elongated rectangle costs more per square foot than a square shape, but this difference is not recognized in the manual. The manual provides a flat amount to be added for any kind of fireplace, completely ignoring the wide variation in cost actually found among fireplaces.

The classifications and procedures for appraisal of commercial buildings is especially complicated. The classification of such buildings for use of unit costs is too cumbersome and inadequate. The commercial section of the manual is not adequately understood by many appraisers and assessors. Many buildings do not fit in the classification which an appraiser attempts to use, and painstaking adjustment to allow for variation from class is necessary. A simpler and more satisfactory method would be to appraise the cost of various components found in each building, such as foundation, floors, walls, roof, etc., and add together whatever components are present in each building. This would not require an attempt to classify the buildings.

While the use of a classification system for residential buildings, which are more amenable to classification than are commercial buildings, is desirable, the present system of classification is not being uniformly applied. The classification system in the manual is capable of divergent interpretation by different appraisers. This seems to be partly due to the fact that class specifications contained in the manual are insufficiently

definitive. It is partly due to the fact that appraisers and assessors have been insufficiently instructed and trained in the use of the classification system.

The manual is obsolete in two respects. First, since it was developed, there have been new developments in the construction of buildings for which the manual provides no means of appraisal. New building materials and new methods of construction have been developed for which the manual contains no costs. New types of commercial buildings have been designed and constructed which do not fit into any classification in the manual. Examples of these are modern medical and dental clinics, one-story office buildings, supermarket buildings, super service stations, modern skyscraper structures, and drive-in structures. Also, new types of residential buildings are difficult to classify and appraise from the manual. Mass-constructed housing on the one hand, and custom-built dwellings of unusual design on the other, constitute special problems for which the manual has no provision.

Second, the use of 1941 costs of construction has, today, become unrealistic, particularly when an effort is made to compare resulting valuations with current market values or the actual costs of current construction. The various components of materials and labor have not inflated in cost at a uniform rate since 1941. Some types of material which were relatively new in 1941 cost even less today than they did in 1941. It is futile to try to convert the current cost of materials which did not exist in 1941 to a 1941 level of cost.

The manual requires much more mathematical computation than is necessary.

Manual policy with reference to depreciation does not truly reflect current market conditions.

Need for Manual Revision

In view of the faults found in the present manual, a new manual should be developed and issued to the assessors. This manual should be based on current construction costs, and provision should be made to maintain it on a current basis. Means of converting costs of one year to those of another should be provided. In order to make this possible, a complete file of detailed material and labor costs should be maintained by the tax commission to support the unit costs in the manual. There is no such file of 1941 costs with the present manual.

A simplified system of classification and appraisal should be provided for use with residential buildings. Simpler methods of computation should be developed. Specifications of class should be more definitely set forth so as to encourage greater uniformity in classification.

The system of classifying commercial and industrial buildings should be abandoned, and a system of addition of vertical and horizontal components should be substituted therefor.

A new table of normal depreciation which more truly reflects loss of value experienced by buildings should be provided. In constructing such a

table, a careful study of sales of buildings of various ages and classifications is needed to determine what loss in value actually results from normal aging, with reference to current market values.

Provision should be made for such adjustments from reproduction cost as are required to reflect actual variations in market value. The use of a sales ratio study should be continued for this purpose.

During the course of this study consideration has been given to the need of an early revision or replacement of the manual along the lines suggested above. At the invitation of the tax commission, a committee of county assessors studied the problem at great length and recommended a form of new manual to be adopted, the recommendations being in considerable detail. No action has been taken to adopt and implement their proposal, mainly because of the cost involved. It was estimated that such an undertaking might cost as much as $300,000. Not having funds to undertake such an expensive project, and having no assurance that sufficient funds would be made available, the tax commission has undertaken a limited project during the past year. It is studying the current costs of modern mass-constructed dwellings and is developing a method of appraising such buildings on a current-cost basis which may be placed in the hands of the assessors as a supplement to the present manual.

In general, the proposal made by the assessors meets the requirements outlined in the above paragraphs, except in two respects. First, a greater simplification of the system of appraising residential buildings than they recommend would be desirable. Second, their recommendation that separate manuals be developed for each of several economic regions within the state reflecting the costs of construction in each region seems unnecessary and excessively costly. It is true that regional differences do exist and it is necessary that these differences be recognized in assessed valuations. However, a uniform system of appraisal based on uniform costs should be used in determining reproduction costs, regardless of location. Then reproduction costs so determined can be adjusted for regional, and even local, variations in actual market value, resulting from varying economic conditions, by means of a continuing study of real property sales.

Special Problem on Assessment of Farm and Ranch Improvements

The law provides that "improvements shall be listed and valued separate and apart from land, except lands which are used for agricultural purposes, which agricultural lands shall be valued as a unit with the improvements and water rights located upon them."[3] The underlined portion of this statue was adopted as part of House Bill No. 4, 1957. This was an amendment of Sec. 137-1-2, which read: "Improvements may be listed and valued separate and apart from land." This latter phraseology had been adopted in 1953 as an amendment to Sec. 142-1-2, CSA 1935, which read: "Land to be listed and valued separate and apart from the personal property and improvements thereon."[4] As can be seen, the progression was from the

3. C.R.S. 1953, Sec. 137-12-8.
4. Law 1902, p. 43.

requirement in the 1902 law that land and improvements be listed and valued separately, to the 1953 amendment permitting unit valuation, to the 1957 amendment requiring unit valuation in the case of agricultural land.

The background of these changes in the law is to be found in the feeling of owners of agricultural land that improvements on the land have no value separate and apart from the land, that they should be so treated for assessment purposes, that the practice of determining a land valuation and then adding to it the appraised value of all buildings situated upon the land results in an over-assessment. Their theory is that each farm unit, including its improvements, is worth a certain amount as a unit, that it is bought, sold, leased, or operated on this basis, and that it should be assessed accordingly.

The adoption of the 1957 amendment referred to above has resulted in no change in assessment policy or practice. The assessors have not changed their methods of assessment and the tax commission has not changed its policy. The position of these officials is that an appraisal of a farm unit, as of any other property, can be made only by appraising its component parts. Having done this, the mere form of combining the separate valuations into one total valuation is meaningless, and that as long as land and improvements are appraised separately they should be listed seperately in order that it can be known what valuation has been placed on the separate components. The tax commission contends that under its authority to "classify, diminish or add to the forms of abstract and to require such different, or further matters to be returned as it may deem advisable",[5] it still has the authority to demand that the assessors list improvements separately, in spite of the provisions of Sec. 137-12-8.

Controversy has developed which is fraught with emotion on both sides, and it is essential that a solution be found that will settle the controversy within the limits of the requirement of equalized assessments. Actually, a part of the trouble results from a regrettable misunderstanding.

Present tax commission policy, as embodied in the manual, recognizes "The principle that the combined assessed value of farm lands and improvements on any one farm parcel should not exceed the fair pre-inflationary sale value of that parcel".[6] In recognition of this principle, certain rules were provided in Section E of the manual for the allowance of loss of value of farm and ranch improvements for various reasons. Loss of individual building utility due to a change in type of farming or farming techniques may be recognized by reduction of valuation to a minimum of ten per cent of reproduction cost (1941 level). Such buildings as horse barns on mechanized farms, now used as machinery sheds, with much space no longer usable, dairy barns on units that have changed from dairy farming to strictly cropping operations, and large hay barns on farm units that no longer have any need for storage of quantities of hay may be treated in this manner. Loss of

5. C.R.S. 1953, Sec. 137-3-42.
6. Assessors' Real Estate Appraisal Manual, page C5.

utility due to consolidation of farm units into larger units, leaving complete sets of improvements which are no longer used, may be recognized by reducing the assessment on unused buildings to a minimum of ten per cent of reproduction cost. As with other classes of improvements, an allowance can be made for physical deterioration of a building beyond what is normal for its age. An allowance can be made for "over-improvement"--the investment of more money in buildings than can be economically justified by the productive capability of the farm unit.

The actual application of these principles by county assessors leaves much to be desired. Some assessors, as a matter of policy, are reluctant to grant allowances where justified. Others, in recognition that various types of obsolescence do exist, grant a uniform percentage off of the assessed valuations of all farm improvements, instead of treating each farm unit as an individual problem to be judged on its own merits. This practice is not authorized by the tax commission, but an attempt in 1956 on the part of the commission to end the practice was thwarted by the state board of equalization.

Some proponents of unit assessment contend that improvements add nothing to the value of a farm unit, that farm units having no improvements will sell for just as much per acre as units having improvements, and that, therefore, no assessment should be placed upon improvements. This contention is found particularly in the dry farming areas of the high plains. Attention to sales should illuminate this question considerably.

The state average ratio of agricultural land having improvements is 25.7 per cent, while the average of agricultural land having no improvements is 20.2 per cent. This could indicate either that farm improvements are assessed too high, or that agricultural lands are assessed too low. Other state average ratios of significance to this problem are shown below, with the agricultural average ratios.

State Average Ratios

	Land With Improvements	Land Without Improvements
Agricultural land	25.7%	20.2%
Urban land	29.7	21.4
Miscellaneous rural land, non-agricultural	25.6	16.7

From this comparison, it can be seen that there is actually less difference between the ratio of agricultural land having improvements and having no improvements than in the case of other land classes. This would seem to indicate that this is not a problem relating to agricultural improvements only, and that the answer is that land, in general, may be assessed too low in relation to improvements. More detailed study of sales information may shed more light on the problem.

Another aspect of this controversy relates to assessments on farm dwellings. Some proponents of unit assessment admit that farm dwellings occupied by owners should be treated separately, being subject to a full assessment based on re-production cost less depreciation, without regard to income production of the farm unit, while others contend that they should be regarded as an integral part of the unit. The one contention is that the owner-occupied farm dwelling should be treated no differently than the city-dweller's residence, which produces no income. Others contend that, unlike the urban dwelling, a farm dwelling cannot be sold separate from the farm unit, cannot usually be rented, if not occupied by the owner, and is an essential part of the income-producing farm unit.

Regardless of what may or may not be determined about the equity of assessments now in effect, the stated policy of the tax commission should, if properly applied, produce equitable assessments and recognize the unit assessment principle. If in a county, the normal sales experience is that assessments of land and improvements combined are excessive in relation to average market value of similar farm units, the assessments on improvements can be reduced accordingly. If such is not the case, no reduction should be needed. One precaution should be exercised, however, in the unit approach to the equalization of assessed valuations. That is that in comparing the combined assessed valuation of the land and improvements of a farm unit, with sales price, all of the land which is used in connection with the unit should be considered, whether it is owned or leased by the operator.

Findings and Conclusions

1) The assessed valuations on improvements are not equalized within the class, within or among counties, nor with other classes of property.

2) The manual provided by the tax commission for the reproduction-cost appraisal of improvements is obsolete, inadequate, and faulty in many respects.

3) Improvements should be assessed according to the reproduction cost of such improvements, adjusted to reflect loss in value due to age, normal wear and tear, actual physical condition, loss of use, obsolescence, and local or regional economic conditions, to the end that the combined assessed valuation of improvements and the land which is associated with them, taken as a unit, shall not be a greater proportion of the average market value than is that of similar properties similarly situated.

4) For the purpose of judging the assessed valuation of improvements used in the operation of an agricultural unit for comparison with the market value of such unit, all acreage of land which comprises an operating agricurtural unit should be included.

5) For the purpose of such assessment the Colorado tax commission should provide the county assessors with an appraisal manual containing a method of determining the reproduction cost of all classes of improvements.

Such manual should be based upon current costs of construction, should be maintained current by the publication of annual supplements, and should also include indices for converting construction costs of one year to those of another year.

6) Such legislation as is needed to implement the foregoing conclusions should be enacted.

IX

THE ASSESSMENT OF PERSONAL PROPERTY

Personal property, for purposes of assessment, includes all taxable property which is neither land nor improvements thereon, which is affixed to neither land nor improvements. As a class, it is characterized by easy mobility, frequent change of ownership, lack of public record of ownership, great variety in nature, rapid fluctuation of value because of aging, wear and tear, obsolescence, loss and destruction, and the operation of the law of supply and demand in the market. All of these characteristics tend to complicate the problem of assessing this class of property, and of evaluating the results achieved.

Exempt Personal Property.

Many types of personal property have been removed from the taxable class by specific exemption. Much personal property is subject to exemption according to its ownership or use, along with real estate of the same ownership or use. Other broad classes of personal property have been exempted from property taxation because of the unsuitability of that form of taxation, and have been subjected to other forms of taxation instead.

All personal property which is publicly-owned or is owned by banks or county fair associations is exempt by reason of such ownership. All personal property which is used solely and exclusively for religious, non-profit school, or strictly charitable purposes is exempt by reason of such use. Household furnishings and personal effects which are not used for the production of income at any time have been exempted. Intangible personal property was exempted from the property tax with the adoption of the state income tax. Motor vehicles, trailers and semi-trailers, except those in the process of manufacture, or in storage, or in the hands of manufacturers, distributors or dealers, were exempted from property tax with the adoption of the specific ownership tax. Reference is made to the more detailed explanation of exemptions contained in Chapter IV.

Taxable Personal Property.

All other personal property is subject to assessment. The total 1958 assessed valuation of this property in the state was $576,199,643, which was 17.4 per cent of the total assessed valuation of the state. Table XIII shows the 1958 assessed valuation of personal property by classes as reported to the state tax commission. Table XIV shows the relative importance of this general class of property and its major parts.

For the purpose of analyzing assessment policy and practice, there are three major classifications of personal property, of distinctly different characteristics, that can best be considered separately. They are: 1) livestock, 2) merchandise and manufactures, and 3) all other personal property.

Livestock.

Constitutional and Statutory Provisions. Other than the general provision relating to all property that it shall be assessed at its full cash value, there is only one statutory provision, and no constitutional provisions, relating to the manner of determining the assessed valuation of livestock. It is "that neither the term 'merchandise' nor the term 'manufactures' shall be deemed to include livestock and agricultural or livestock products in a raw or unprocessed state, except such agricultural or livestock products as are held by a retailer for sale to the ultimate consumer."[1] This provision merely has the effect of forbidding the assessment of livestock as merchandise on the basis of the average amount of moneys or credits invested during the calendar year, thus eliminating one of the possible methods of valuation determination.

There are several other provisions relating to the administrative procedure to be followed in making assessments, the division of livestock assessments between counties, and the assessment of livestock brought into the state during the year. These, being related to procedural matters, rather than to valuation determination, will be discussed in a later chapter on assessment procedures.

Tax Commission Policy. The policy of the tax commission with reference to the determination of the valuation of all classes of livestock is promulgated in an annual publication known as Circular No. 1. This circular contains "recommendations" for the assessment of most classes of personal property, including livestock.

These recommendations are adopted following consultation by the tax commission with the county assessors as a group, acting through the Colorado Assessors' Association. At the time of the annual conference of this association in January of each year, the county assessors assemble in four separate district meetings. There they discuss assessment policy, such as the minimum valuation which should be used per head for various classifications of livestock during the ensuing year, and arrive at a consensus of opinion in each district. Each district meeting then selects two of its members to represent the district on what is known as the advisory committee of the association.

This advisory committee consists of the president of the association, the eight assessors representing the four districts, one assessor representing the association at large, appointed by the president, and the three tax commissioners. This committee reconciles the differences of opinion among the four districts, and determines what recommendations are to be issued for the guidance of the assessors. These recommendations are then issued in Circular No. 1 under the authority of the tax commission.

---

1. C.R.S. 1953, Sec. 137-3-25.

TABLE XIII

1958 ASSESSED VALUATION OF PERSONAL PROPERTY
by Classes, as Reported to the State Tax Commission

Class	Number of Units	Average Valuation per Unit	Total Assessed Valuation
LIVESTOCK			
Cattle			
Registered Herd Bulls	2,176	$202.35	$ 440,440
Range Bulls (Pure Bred)	24,352	102.70	2,500,981
Pure Bred or Registered Cattle (Coming Yearling)	8,585	52.20	448,230
Pure Bred or Registered Cattle (Yearling or Over)	20,450	75.42	1,542,315
Steers (Coming Two Years Old or Older)	14,775	49.90	737,290
Calves (Coming Yearlings)	386,656	25.05	9,686,725
Range and Stock Cattle (Coming Two Years Old or Older)	589,969	38.15	22,508,988
Pure Bred or Registered Dairy Cattle	4,509	80.22	361,720
Grade Dairy Cows	95,563	56.10	5,360,258
Cattle Fed in Transit	379,695	13.05	4,953,639
Total Cattle	1,526,730	$ 31.80	$48,540,586
Sheep			
Bucks and Ewes, Pure Bred & Registered	5,737	$ 15.09	$ 86,599
Bucks and Ewes, Pure Bred not Registered	16,842	14.65	246,800
Stock Sheep (Mixed Bunches)	825,233	4.98	4,110,845
Ewes (Old)	121,340	3.10	375,922
Sheep Fed in Transit	390,223	1.28	500,752
Total Sheep	1,359,375	$ 3.91	$ 5,320,918

TABLE XIII (Continued)

Class	Number of Units	Average Valuation per Unit	Total Assessed Valuation
Horses and Mules			
Pure Bred Stallions and Mares	1,670	$102.33	$ 170,900
Ranch, Work, and Dray Horses	10,112	33.26	336,412
Saddle & Cow Ponies	28,900	35.88	1,036,932
Mules, Burros	868	30.52	26,487
Total Horses & Mules	41,550	$ 37.80	$1,570,731
Miscellaneous Livestock			
Swine*			$ 589,219
Goats	3,919	$ 2.99	11,736
Rabbits	1,445	.70	1,015
Fur-Bearing Animals	14,549	6.12	88,992
Bees (Stands)	36,526	4.02	146,960
All Other Animals	1,683	21.80	36,700
Total Miscellaneous Livestock			$ 874,622

* Number not reported.

Poultry (Dozens)			
Chickens	85,788 3/4	$ 5.05	$ 433,566
Turkeys	1,767 1/4	29.75	52,567
Ducks, Geese, etc.	21 3/4	19.13	416
Total Poultry	87,577 3/4	$ 5.55	$ 486,549
Total Livestock			$56,793,406
MERCHANDISE AND MANUFACTURES			$252,586,132

TABLE XIII (Continued)

Class	Total Assessed Valuation
OTHER PERSONAL PROPERTY	
Tractors	$19,539,880
Combines	3,940,452
Agricultural Implements, Machinery, Harness, etc.	18,198,082
Industrial Machinery and Equipment	90,273,320
Metalliferous Mining Machinery & Equipment	16,394,245
Oil Drilling Machinery & Equipment	12,361,530
Coal Mining Machinery & Equipment	1,491,590
Construction Machinery	5,379,433
Manufacturing & Industrial Plant Supplies	17,359,021
Furniture & Fixtures	59,659,310
Coin Machines	967,967
Pianos, Organs, & Band Instruments (Productive of Revenue)	114,635
Libraries (Commercial & Professional)	324,291
Household Furnishings (Productive of Revenue)	8,750,169
Personal Effects (Productive of Revenue)	31,150
All Other Personal Property	12,035,030
Total Other Personal Property	$266,820,105
Total Personal Property	$576,199,643

TABLE XIV

Showing Relative Importance of Assessed Valuation of Personal Property

Class Grouping	Valuation	Per cent of Total Personal Property Valuation	Per cent of Total Valuation by county Assessor	Per cent of Total Valuation
Livestock	$56,793,406	9.9	2.0	1.7
Other Agricultural Personal Property	41,678,414	7.2	1.4	1.3
Industrial Personal Property	143,259,139	24.9	4.9	4.4
Mercantile Personal Property	322,433,654	55.9	11.1	9.8
Other Personal Property	12,035,030	2.1	.4	.4
Total	$576,199,643	100.0	19.8	17.6

For the assessment of livestock, the circular contains recommendations of minimum average assessed valuations per head for various classes of livestock. These recommendations for 1958 assessments were as follows:

Class of Livestock		Recommended Minimum Average Valuation
Registered Herd Bulls		$200.00
Range Bulls (Pure Bred)		100.00
Pure Bred or Registered Cattle (Coming Yearlings)		50.00
Pure Bred or Registered Cattle (Yearlings and Over)		75.00
Steers (Coming two years and over)		50.00
Calves (Coming yearlings, born in 1957)		25.00
Range and Stock Cattle (Coming two years and over)		38.00
Pure Bred & Registered Dairy Cows		75.00
Grade Dairy Cows		55.00
Bucks and Ewes (Pure Bred)		15.00
Stock Sheep (Mixed Bunches Range Animals)		5.00
Old Ewes (Short Term Breeders)		3.00
Swine (Weaning Pigs and Older), per pound		.07
Range Goats		2.50
Milk Goats		4.50
Foxes		10.00
Chinchilla		5.00
Mink		6.00
Bees	per stand	4.00
Chickens	per dozen	5.00
Ducks	per dozen	10.00
Geese	per dozen	20.00
Turkeys	per dozen	30.00

All other livestock, such as horses and mules are "to be assessed according to value at the discretion of assessor."

These recommended valuations are not minimum valuations. If they were, no assessment of livestock would be made lower than the recommended valuations. Instead, they are minimum average valuations. It is intended that in each county, the average valuation per head for all livestock of a particular classification, such as registered herd bulls, should not fall below the recommended average. However, many individual assessments may be lower, and many higher, so long as the average is not below the recommended average. With this limitation, the county assessors are expected to assess each herd of cattle or band of sheep according to its true value. Presumably some should be assessed considerably higher than others.

The weakness of this sort of recommendation is the likelihood that county assessors will tend to take the recommended minimum average valuation as a standard valuation per head to be used in all or most assessments. When this is done, actual variations in value are not recognized. True equalization is sacrificed, and in its place there is a false equalization in which all livestock of a particular class are assessed at exactly the same valuation. This is exactly what has happened.

The use of the advisory committee in determining the recommendations means that, in effect, the level of valuation on livestock is usually controlled by the assessors themselves. Of course, since the three tax commissioners are members of the committee, they may voice their opinions and exercise some influence over what is recommended to them as the tax commission. This participation by the assessors is not, in itself, reprehensible, so long as it results in equitable assessments upon livestock which are equalized with assessments upon other classes of property. In fact, it is desirable that the co-operation of the county assessors be enlisted and sustained in all phases of the effort to achieve the goal of equalization.

However, recommendations determined in this manner can be only a compromise among many divergent views, and it is possible that they may not be equalized with the levels of value on other property. An important factor in this problem is the fact that representatives of livestock interests petition the assessors, both individually and at their annual meeting, expressing their desires concerning the valuations that are to be used. Not many years past, the determination of livestock valuations usually was the result of a bargaining process between the livestock representatives who were trying to prevent a valuation increase or to obtain a reduction for its own sake, and some of the assessors who felt that just assessments should require an increase. In recent years, however, there has been a healthy development of a realization on the part of both assessors and livestock representatives of the need for equalizing livestock assessments with assessments on other classes of property. As a result, one livestock organization in particular presents for consideration by the assessors statistical information concerning livestock values for the preceding year with a request for the use of particular valuations. In 1958, a valuation increase was actually requested in this manner.

Assessment Practice. Actual assessment practice can be judged by apparent compliance with the recommendations of the tax commission as promulgated in Circular No. 1. Table XV shows for several major classes of livestock a comparison of the recommended minimum average valuations with the state-wide average assessed valuation for 1958. It also shows, for each class, the number of counties whose average valuations exceed the recommendations by more than five per cent, and those which are more than five per cent less than the recommendations, and the highest and lowest county average valuation. Table XVI shows the number of counties represented in varying degrees of variation from the recommended minimum average valuations.

The comparisons shown in these tables indicate a remarkable adherence to the schedule of recommended minimum average valuations of the tax commission. The average valuation for the state in the livestock classes included in the tables varies in no class in excess of five per cent above or below the recommended minimum average. In only one case does the state average valuation fall below the recommended minimum average, and then only by .4 per cent. In only twenty-one counties is there any variation of average valuations for a class in excess of five per cent above or below the recommended minimum averages, and in these counties the excessive variations are not found in all classes.

This would seem to indicate what has been suggested before. In general, the assessors are assessing the majority of livestock uniformly at the recommended minimum average valuations with little variation therefrom. This represents a commendable compliance with a prescribed policy. However, such compliance is of a mechanical nature, and it is evident that assessors, in general, are giving insufficient attention to the actual variations in value of herds because of varying quality of livestock. It is not likely that livestock are as uniform in value from county to county as the assessment statistics would indicate.

Another factor influencing the value of livestock, in addition to its quality, is the distance to market. The cost of marketing livestock from different parts of the state varies considerably according to distance, and the freight-rate structure which applies. This variation in marketing cost influences the value of the livestock itself, and in turn, should influence the level of assessed valuation. Under present assessment practice, this factor is given no consideration.

Still another factor affecting the assessment of livestock is the fact that such assessment is an inter-county problem. Livestock, being very mobile in nature, and requiring different pastures for each season of the year, is moved during the year from one county to another. By statutory provision, when such movement occurs, each county assesses a part of each herd so moved according to the length of time that it is within the county. Equalization requires that a given herd be assessed at the same valuation per head in each county wherein it spends any time during the year. For practical purposes, the county assessors have found that the best way to achieve this equality is to assess at a uniform valuation per head. This is probably the most important cause of the uniformity of assessed valuation referred to before.

It is also important whether all taxable livestock are actually assessed. An equitable rate of valuation per head may be used in such a manner as to properly reflect the true value of each individual head of livestock which is assessed. Yet, if some of the livestock in the state escapes assessment, livestock as a class will be under-assessed in relation to other classes.

TABLE XV

VARIATIONS OF 1958 AVERAGE ASSESSED VALUATIONS FROM RECOMMENDED MINIMUM AVERAGE VALUATIONS.

Class	Rec.Min. Average Valuation	1958 Average State Valuation	County Averages Over 105% Rec.Min.	Highest County Average Valuation	County Averages Under 95% Rec.Min.	Lowest County Average Valuation
Registered Herd Bulls	$200.00	$202.35	3	$247.50	6	$169.26
Range Bulls (Pure Bred)	100.00	101.01	3	140.30	2	89.72
Pure Bred or Registered Cattle Coming Yearlings	50.00	52.20	8	76.75	2	42.19
Pure Bred or Registered Cattle, Yearling or Over	75.00	75.42	2	84.30	0	
Calves (Coming Yearlings)	25.00	25.05	6	27.99	2	22.07
Range Cattle	38.00	38.39	5	41.88	2	34.84
Stock Sheep, Mixed Bunches	5.00	4.98	2	5.59	6	3.11

TABLE XVI

VARIATION OF COUNTY AVERAGE VALUATIONS OF SEVEN CLASSES OF LIVESTOCK FROM RECOMMENDED MINIMUM AVERAGE VALUATION.

Degree of Variation	Number of Counties
Average valuations all classes within 5% of recommendations	41
Average valuations above 105% of recommendations:	
On 1 class only	11
On 2 classes	3
On 5 classes	1
Average valuations under 95% of recommendations:	
On 1 class	1
On 3 classes	1
On 4 classes	1
Average valuations above 105% on some classes and under:	
95% on some classes:	
Above on 1 and below on 1	2
Above on 2 and below on 3	1
No livestock assessments reported as such	1
Total	63

In general, investigation shows that county assessors as a group are conscientious in their efforts to assess all livestock within their jurisdiction. Yet, to do so is very difficult. Due to the mobility of livestock, a complete determination of the number of livestock present in a county on the assessment date or which are moved into a county during the year is impossible. That is, an assessor cannot be sure that he has a complete assessment without more man-power than is available to him. It is even more difficult for anyone else to judge how complete an assessment a particular assessor has made. The only way this could be done with certainty would be by an actual inventory of the livestock. There are no statistics available from any source which can be used as a satisfactory guide as to the number of livestock that should be assessed in any county. A person might know definitely from some source that on a given date there were 10,000 head of cattle in a given county on a given date. Yet he could not determine how many head of cattle should be assessed in that county. An undetermined number of the 10,000 would be cattle that were not assessable on the assessment date. There would be no way of determining accurately how many of the 10,000 would spend the entire year in the county and be assessed there in their entirety, or how many would spend only a part of the year in the county and would be assessed only for the portion of the year in the county. There would be no way of knowing what movement in and out of the county there had been between the date of the assessment and the date of the inventory.

This problem will be discussed in more detail in a later chapter on assessment procedures. It has been mentioned at this point to explain the effect it has upon the problem of equalization.

Merchandise and Manufactures

Constitutional and Statutory Provisions. The statutes of Colorado contain the special provision that "In ascertaining the amount of moneys of any taxpayer invested in merchandise or in manufactures, the assessor shall ascertain the average amount during the fiscal year for which the tax is to be levied. The average amount of money invested in such merchandise or manufactures during twelve months ending with the last day of December of such fiscal year shall be taken as a true measure of the value of such merchandise or manufactures for such fiscal year. Provided, however, that neither the term 'merchandise' nor the term 'manufactures' shall be deemed to include livestock and agricultural or livestock products in a raw or unprocessed state, except such agricultural or livestock products as are held by a retailer for sale to the ultimate consumer."[2]

There is the further provision that "In listing the credits and moneys invested in merchandise or manufactures, the person making the list shall state the average of such moneys and credits invested in such merchandise or manufactures, during each calendar month of the year ending with the last day of December. If he has not been a resident of the county or has

2. C.R.S. 1953, Sec. 137-3-25.

not been engaged in the business of merchandising so long, then he shall take the average during such time as he may have been so resident or engaged; and if he be commencing, he shall take the value of the property on hand at the time of listing. Any person who purchases, receives or holds personal property of any description for the purpose of adding to the value thereof by any process of manufacturing, reducing, extracting, refining, purifying, or by the combination of different materials with the view of making gain or profit by so doing and by selling the same shall be held to be a manufacturer for the purpose of assessment and collection of taxes, and he shall list for taxation the average value of such property in his hands, estimated as merchants are directed by section 137-3-25 to estimate the amount invested in merchandise. Provided, however, that the grading, sorting, classifying, or packaging of raw or unprocessed agricultural or livestock products shall not constitute one a 'manufacturer.'"[3]

These two sections, taken together, define what is assessable as merchandise or manufactures, and prescribe, in general terms, a method for determining the value of merchandise,[4] which is that with which we are concerned in this chapter. The basis of the assessment is the average amount of moneys and credits invested during the year. It is not the value of the merchandise in the hands of a merchant on any given date. Nor is it the value of merchandise purchased or sold during any period of time. Nor is it the value of the business as might be determined by the profit it produces, as affected by such factors as mark-up, rate of turnover, and overhead cost. It is, purely and simply, the amount invested, on the average, in merchandise. Nor is the amount of the investment limited to the amount of cash investment, but includes any credit obligation for any merchandise in possession.

At this point reference should be made to an error in the statute. The ascertainment of the "average amount during the fiscal year for which the tax is to be levied" and "during twelve months ending with the last day of December of such fiscal year" is not possible on the first day of February, the assessment date. The statute should be changed to read "average amount during the year preceding the fiscal year for which the tax is to be levied" and "during twelve months ending with the last day of December of the year preceding such fiscal year." In recognition of this error, in actual policy and practice, the preceding year is now used, in any event.

Tax Commission Policy. The policy of the tax commission is stated in Circular No. 1, previously referred to. It prescribes the use of a standard form for the return of merchandise inventory information by the owners of merchandise. It recommends that fifty per cent of the average inventory be taken as the assessed valuation. It insists that opening and closing inventories be secured direct from the state income tax return of the taxpayer. It suggests that if the latter is not done a higher percentage of assessment may be used.

3. C.R.S. 1953, Sec. 137-3-26.
4. The term merchandise will be used to mean both merchandise and manufactures.

The prescribed form, known as a Statement of Personal Property, provides spaces for the taxpayer owning merchandise to enter the following information relating to value: amount of beginning inventory, amount of closing inventory, and the average of the two. Additional space is provided for listing of additional inventories, which may be as frequently as monthly, if available.

Not stated in the 1958 Circular No. 1, but a policy of many years' standing, is that a merchandise assessment must be based upon at least two inventories, opening and closing, but that it is permissible, and more desirable, to base it upon the average of more inventories, up to twelve, if the same can be obtained.

The suggestion than an assessment of more than fifty per cent be used, if opening and closing inventories are not secured direct from the income tax return of the taxpayer, is designed to encourage taxpayers to reveal at least that much information. It is also based upon the belief that a taxpayer return of an unconfirmed amount of inventory may be understated and that, therefore, a higher rate of assessment is justified.

Actual Practice. Investigation has shown that all assessors, except one, are using the recommended fifty per cent basis of assessment. That is, no evidence was found that any other assessors were, as a matter of policy, assessing merchandise and manufactures at a lower percentage of the average inventory returned. Some were using a higher percentage on unconfirmed merchandise returns.

Aside from the percentage used, the main factors to be considered in judging practices in the assessment of merchandise are: 1) efficiency in determining the amount of money and credit invested; and 2) the manner of determining the average amount of money and credit invested. These two factors, however, are so inter-related that they cannot be treated separately.

As with livestock, there can be no equalization of merchandise as a class with other classes of property unless the entire investment in merchandise is assessed. It is not likely that any owners of merchandise are escaping assessment. However, the amount of investment reported may be short of the actual amount of investment. And the policy used by the assessor in determining an average may cause assessments to be higher or lower than they otherwise would be.

Some counties, in order to insure a full return of merchandise investment, require absolute proof of the amount returned. This involves an actual inspection of the books of a merchant by a qualified tax accountant to verify the accuracy of the return, where such books are present in the county. In the case of merchants whose books are located elsewhere, the return is required to be certified to by a certified public accountant. One county even requires the submission of photostatic copies of the records, which are kept in strict confidence.

Some assessors, particularly those who do not have the services of qualified tax accountants to inspect the books of merchants, at least attempt to verify the returns by comparing them with income tax returns filed with the state, which is permitted by law. Other assessors, unable to

employ tax accountants, not having such qualifications themselves, and being beset with a multiplicity of other problems, are inclined to accept whatever return is made to them.

Considerable variation in practice regarding the determination of average amount of money invested is found. Such a determination varies with the number of inventories used. It can be based upon opening and closing inventories for the preceding year only. Or it can be based upon a greater number of physical inventories, if available, up to twelve. Or it can be based upon a calculation of monthly inventories from actual physical opening and closing inventories, using monthly purchases and sales as factors. Or it can be based upon monthly perpetual inventories, if available.

In all counties at least a part of the assessments are based upon a simple average of opening and closing inventories. In some counties, all assessments are based upon this method. It is a simple method, involving merely the averaging of two amounts which are available from every merchant and can be verified. All merchants take at least these two inventories and are required to report them for state income tax computation. The amounts returned for income tax can be obtained from the department of revenue for comparison with the merchandise return to the assessor.

The use of the average of two inventories, however, does not necessarily provide the assessor with an average of the amount of money invested during the year. Some merchants have higher inventories at the time annual inventories are taken than at any other time in the year. An average of the two inventories would be higher then than the average during the year. Others, especially those whose businesses are more active in the summer months, have lower inventories at the time of the annual inventories than at any other time of the year. An average of the two annual inventories would be too low. It would appear then, that the use of only two inventories would not produce equalized assessments among merchants on the basis of the average amount invested.

The use of an average of twelve monthly inventories is the best method from the point of view of assessment results. It more nearly reflects the true average of the amount invested during the year. However, it is a method which is more difficult to use because of the difficulty of determining the twelve inventories. Some large merchants take a physical inventory monthly, and they can easily report them, and are glad to do so, if it will result in a lower assessment. Some other merchants maintain a perpetual inventory, adding to the inventory account all merchandise purchased, as purchased, and deducting all merchandise sold, as sold, at cost. They can easily report the status of this perpetual inventory at the end of each month.

In the case of merchants who neither take monthly inventories, nor maintain perpetual inventories, it is possible to calculate monthly inventories if the amount of monthly purchases and sales is known. The following

formula is used. First, a cost-of-goods-sold factor is determined as follows:

Beginning Inventory	$ 50,000
Plus Purchases during the year	200,000
	$250,000
Less Closing Inventory	70,000
Cost of Goods Sold	$180,000

Cost of Goods Sold ($180,000) divided by Total Sales for Year ($240,000) equals Cost of Goods Sold Factor (75%).

In other words, on the average, the goods which were sold cost the merchant 75% of his selling price.

Next, the cost of merchandise purchased during the first month is added to the opening inventory. Seventy-five per cent of the sales price of merchandise sold during the first month (the cost of goods sold) is deducted. The result is the calculated inventory at the end of the first month.

Opening Inventory	$ 50,000	
Plus Purchases during January	15,000	
	$ 65,000	
Less 75% of January sales ($10,000)	7,500	
Inventory January 31	$ 57,500	$57,500
Plus Purchases during February	12,000	
	$ 69,500	
Less 75% of February sales ($12,000)	9,000	
Inventory February 28	$ 60,500	$60,500
Plus Purchases during March	18,000	
	$ 78,500	
Less 75% of March sales ($30,000)	22,500	
	$ 56,000	$56,000

and so forth for the remainder of the year.

In some cases, averages may be based on quarterly inventories, instead of annual or monthly ones, if the former are available.

The assessor obviously cannot inventory all the merchandise in his county. Nor can he calculate for each merchant in his county a set of monthly inventories as illustrated above without a greatly increased expenditure of time. The volume of work involved in either case would be beyond the capacity of many assessors' offices in the state. Therefore, the assessor is forced to rely upon whatever information he can obtain from the taxpayer. In some cases the information obtainable is in the form of a report of monthly inventories, either physical, perpetual, or calculated. In other cases, the great majority, it is in the form of opening and closing inventories only.

In view of this situation, is it equitable for some merchants to be assessed on the basis of opening and closing inventories only, and for others to be assessed upon the basis of a larger number of inventories? Table XVIII illustrates the difference in individual merchandise assessments when assessed on the basis of two inventories, as compared with twelve inventories. Each line of the table represents the actual assessment of a merchant in one of the larger counties. The statements of these merchants supplied not only the opening and closing inventories, but also a twelve-month average.

The assessments actually made were at fifty per cent of the average of twelve inventories, column "B". Column "A" shows what the assessments would have been at fifty per cent of the average of two inventories, and Column "D" shows the percentage that such assessments would be of the assessments actually made. Note that the percentage would vary from 55.9% to 179.6% in individual cases, and that the total assessment of all these merchants by the one method would be 99.3% of the total assessments by the other method. This latter is a minor variation, but the variations in individual assessments would be quite significant.

Column "C" shows what the assessments would have been at sixty-five per cent of the average of two inventories, and column "E" shows the percentage that such assessments would be of the assessments actually made. Note that the percentage would vary from 70.6% to 233.5% in individual cases. The total valuation would be 129.1% of the valuation by the method in use. This is a significant variation. The policy of assessing at sixty-five per cent of the average of two inventories is actually used in this county when no more than two inventories are submitted. Therefore, the latter percentage relationships are the ones that would be applicable.

Thirty-eight counties assess on the basis of the average of as many inventories as are submitted, fourteen of them assessing at 50% in all cases, twenty-four of them assessing at 50% if more than two inventories are submitted, at 65% or more, up to 100%, if only two are submitted. Twenty-five of them use only the opening and closing inventories, assessing at 50% of the average of the two.

The biggest problem involved in making assessments based on average inventories is in obtaining the necessary information. At present, as stated above, the assessments vary considerably from county to county according to how successful the assessor is in obtaining the information. In all counties a large part of the assessments are based on a simple average of two inventories. As has been demonstrated, this does not provide a true average of the amount of money invested. Some counties attempt to assess on the basis of the best information available, making different assessments in different ways in order to make use of what is available. The result is inequitable treatment of the merchants within the county.

TABLE XVII

COMPARISON OF MERCHANDISE ASSESSMENTS BY DIFFERENT METHODS

Assessed Valuations			Ratios	
A Based on 50% of Average of 2 Inventories	B Based on 50% of Average of 12 Inventories	C Based on 65% of Average of 2 Inventories	D A is x% of B	E C is x% of B
$ 25,060	$ 25,640	$ 32,580	97.7%	127.1%
30,670	31,700	39,870	96.8	125.8
74,650	68,110	97,050	109.6	142.5
11,190	9,820	14,540	114.0	148.1
57,650	58,140	74,950	99.2	128.9
36,190	44,500	47,040	81.3	105.7
67,400	75,130	87,610	89.7	116.6
5,230	5,950	6,800	87.9	114.3
32,660	18,180	42,450	179.6	233.5
9,950	12,620	12,930	78.8	102.5
183,900	183,910	239,070	100.0	130.3
86,080	80,790	111,910	106.5	138.5
27,260	26,040	35,440	104.7	136.1
40,950	43,820	53,230	93.5	121.5
36,670	52,940	47,670	69.3	90.0
36,170	31,760	47,020	113.9	148.0
15,040	13,420	19,550	112.1	145.7
190	340	240	55.9	70.6
19,500	20,370	25,350	95.7	124.4
13,370	11,110	17,380	120.3	156.4
18,230	19,580	23,700	93.1	121.0
$828,010	$833,370	$1,076,380	99.3%	129.1%

Other counties adhere to the use of the simple average of two inventories, which is the only information which is available for all inventories. In doing so, they are treating the taxpayers equally, but they are certainly not obtaining the true average of money invested.

Why does such a problem exist? Most merchants take inventory only once a year. They cannot afford the expense of more frequent inventory-taking. Therefore, the number of merchants who can submit to the assessor more actual inventories than the opening and closing ones is very small. The calculation of monthly inventories is not a common practice among merchants. In order to calculate them, in addition to opening and closing inventories, the amounts of monthly purchases and sales are needed. Many small merchants do not keep records of purchases and sales in such a form that they are able to report them to the assessor. Therefore, all that is reported is the two inventories.

Another problem confronting the assessors in the assessment of merchandise is that of assessing what are commonly referred to as chain stores. Individuals, companies or corporations may own more than one store, and these stores may be in different counties. Some chains may be found in nearly every county. The owners of these chains make a separate return of the merchandise kept in each county to the assessor of that county. In preparing income tax returns, on the other hand, the operations of all stores are consolidated into one return. Therefore, when an assessor attempts to verify the inventories returned to him for property tax purposes with the income tax return, he finds that the inventory shown on the latter represents the total of all the merchandise owned by the chain in Colorado. There is no way for him to determine what part of it is in his county. Therefore, he feels that the return made to him may not include a true statement of the merchandise present in his county.

There seems to be much dissatisfaction among merchants throughout the state with the present basis of assessing merchandise. This dissatisfaction usually takes two forms: 1) a dissatisfaction with the use of fifty per cent or more of the average inventory as the basis of assessment, when other property may be assessed at a much lower percentage of market value; and 2) the feeling that average investment as a basis of assessment is not an equitable basis of assessment as between merchants.

Regarding the first objection, that fifty per cent is too high, it should be pointed out that the fifty per cent is applied to the wholesale cost of the merchandise. When comparing this percentage with a sales ratio on some form of real estate, which may be thirty per cent, a fair comparison is not possible. The thirty per cent is based upon a gross retail sales price of real estate, while the fifty per cent figure is based upon the wholesale cost of merchandise. Probably at least ten per cent should be deducted from the sales price of real estate before determining a ratio for such comparison. This factor of ten per cent would be in recognition of broker's commissions and other costs of making a sale. However, such a ten per cent deduction from a sales price producing a thirty per cent

ratio would only increase the ratio to 33.3%, which is still low in relation to the fifty per cent used on the wholesale cost of merchandise.

While it would seem, by this comparison, that fifty per cent is excessive, another approach provides a different answer. Present assessments of all classes of property are supposedly made at the 1941 level of prices. The procedure that is followed in appraising residences, for instance, is based on 1941 building costs. Fifty per cent of the present cost of merchandise is comparable to the 1941 cost of merchandise, as shown by Table XVIII.

The second objection is that average investment as a basis of assessment is not an equitable basis of assessment as between merchants. This method does not take into consideration the volume of business done during the year, the rate of gross or net profit on business done, or the amount of overhead expenses. Yet business having the same amount of average inventory may vary with reference to these other factors.

The dissatisfaction, then, stems from the knowledge that assessments of the inventory of several firms do not vary in amount in proportion to the ability of the firms to pay taxes as determined by the profit realized. In this connection it should be emphasized that the property tax is not based on the ability to pay. There is no way in which assessments on merchandise can be "tailored" to match the profit derived from the merchandise. The only solution to the problem, within a property tax framework, is to endeavor to achieve more nearly correct assessments upon the basis of average investment in inventory.

Personal Property Other Than Livestock and Merchandise

Personal property other than livestock and merchandise is very miscellaneous in nature. However, most of such property has certain common characteristics which make it possible to use a common method of appraisal. It consists of various kinds of furniture, fixtures, machinery and equipment. These types of property derive value from utility and their value can be measured by a combination of original cost, allowance for price inflation or deflation, and depreciation and obsolescence.

Table XIX illustrates several commonly used methods of appraising the value of such property. It shows the value in 1957 of an item of equipment purchased in 1957 at a cost of $2,000, and of items identical in all respects, except age, purchased in 1956 for $2,000; in 1951 for $1,800; in 1946 for $1,250; in 1941 for $1,000; and in 1937 for $960. The various costs used in this illustration reflect cost relationships based on the 1941 level of costs as contained in one cost index in common use. This particular index shows an increase from 1941 to 1957 of two hundred per cent, and is used in this illustration because of the simplicity of the comparison. Actually, the increase in cost from 1941 to 1957 on many types of machinery and equipment has been much greater than two hundred per cent.

TABLE XVIII

WHOLESALE PRICE INDEX

For the purposes of comparison of wholesale prices of all commodities for the years 1940 through 1956, there has been extracted certain information from the 1956 edition of "Statistical Abstract of the United States" 77th Annual Edition prepared under the direction of Edwin D. Goldfield, Chief, Statistical Reports Division, U.S. Department of Commerce.

The basic information for the comparison set forth below was taken from Chart #383 on page #320 of the Abstract. The chart referred to sets forth the Wholesale Price Indexes for all commodities 1926 to 1956. This index, based on 1947-1949 = 100 is the official index beginning with January 1952. The official index for December 1951 and all earlier dates is that based on 1926 = 100, however, a conversion factor has been applied to indexes of December 1951 and earlier to make them comparable with the index 1947-1949 = 100. The source of the information reflected in the chart is the Department of Labor, Bureau of Labor Statistics; monthly and annual reports, Wholesale Prices and Monthly Labor Review:

Year	Wholesale Price Index, all Commodities	1941 Basic Year Factor	Percentage of 1941 Factor to Yearly Factor	Merchandise Assessment Factor in Colo.
1940	51.1	56.8	111.15	
1941	56.8	56.8	100.00	
1942	64.2	56.8	88.47	
1943	67.0	56.8	84.78	
1944	67.6	56.8	84.02	
1945	68.8	56.8	82.56	
1946	78.7	56.8	72.17	
1947	96.4	56.8	58.92	
1948	104.4	56.8	54.41	75
1949	99.2	56.8	57.26	75
1950	103.1	56.8	55.09	60
1951	114.8	56.8	49.48	50
1952	111.6	56.8	50.90	50
1953	110.1	56.8	51.59	50
1954	110.3	56.8	51.50	50
1955	110.7	56.8	51.31	50
1956	114.3	56.8	49.69	50
(3 months of 1957)	116.9	56.8	48.59	50

(Compiled by Assessor's Office, City and County of Denver)

TABLE XIX

COMPARATIVE VALUES AND ASSESSED VALUATIONS
BY DIFFERENT METHODS OF APPRAISAL

A	B	C	D	E	F	G	H	I
Year Bought	Actual Cost	1941 Cost	Cost 1957 Level Depr.	Cost 1941 Level Depr.	40% Cost Year Bought	40% 1957 Depr. Cost	80% Book Value	Life Sched. 1941 Level
1957	2,000	1,000	2,000	1,000	800	800	1,600	600
1956	2,000	1,000	1,920	960	800	768	1,536	600
1951	1,850	1,000	1,520	760	740	608	1,125	600
1946	1,250	1,000	1,120	560	500	448	700	600
1941	1,000	1,000	720	360	400	288	288	600
1937	960	1,000	400	200	384	160	154	600

The item of equipment used in this illustration has an estimated life of twenty years for purposes of depreciation. Straight-line depreciation is used in all cases. That is, four per cent depreciation is allowed for each year of age. At the end of twenty years eighty per cent depreciation has been allowed, leaving a minimum value of twenty per cent.

Columns A, B, and C give the basic facts from which the valuations in the other columns are derived. Column A is the year in which the equipment was bought. Column B is the cost of the equipment in the year it was bought. Column C is the 1941 cost level, $1,000 in each case.

Column D shows the value in 1957 at the 1957 level of cost ($2,000) with depreciation allowed at the rate of four per cent for each year of age. This represents the value of the equipment at the 1957 level of cost. Calculation of this value involves conversion from the cost in the year bought to the 1957 level of cost by means of a cost index, less the allowance of depreciation for age.

Column E shows the value in 1957 (at the 1941 level of cost, $1,000) with depreciation allowed at the rate of four per cent for each year of age. Calculation of this value involves conversion from the cost in the year bought to the 1941 level of cost by means of the cost index, less the allowance of a depreciation for age.

Column F shows the valuation at forty per cent of actual cost in the year bought, one of the methods of assessment now in use.

Column G shows the valuation at forty per cent of current value (Column D).

Column H shows the valuation at eighty per cent of book value, one of the methods of assessment now in use. The calculation of this

valuation involves obtaining the book value reported by the owner and reducing it by twenty per cent. In this illustration, it was assumed that the owner had entered the cost of this equipment in his accounts as an asset and had allowed depreciation annually at the rate of four per cent of original cost, without any allowance for appreciation in value due to cost inflation.

Column I shows the valuation according to what is known as a life schedule. This method is simply the determination of an average value of the equipment during its normal life, and using this average value from beginning to end without change. In this illustration the valuation used is sixty per cent of the 1941 cost level. The factor of sixty per cent is used because it is the average of value after depreciation during the twenty years of life. More simply, it is the average of one hundred per cent, and twenty per cent.

In general, three of these methods of assessing furniture, fixtures, machinery and equipment are approved by the tax commission and are in use by the assessors. They are: 1) conversion of original cost to the 1941 level of cost and allowance of annual depreciation (Column E); 2) forty per cent of original cost (Column F); and 3) eighty per cent of book value (Column H). Only the first of these produces equalized assessments within the class of property. However, this one is not widely used because of its difficulty of administration. It requires that more detailed information be obtained, and it requires much more computation than the other two methods. The use of all three methods and some variations of each has the added disadvantage that there is not even uniformity of treatment of individual taxpayers. From the taxpayer's point of view, however, in those counties where all three methods are used, the taxpayer has the privilege of choosing the method he prefers with the provision that once having selected the method he is not permitted to change it.

Table XX illustrates the relative degree of equalization achieved by each of the three approved methods, first with relation to the 1941 depreciated cost shown in Column E, which represents the truest value determination at the 1941 level, and second, with relation to the 1957 depreciated cost shown in Column D, which represents the truest value determination at the current cost level.

The extreme variations shown in the table are not found to any extent in actual assessments, however, Taxpayers, given a choice, will not usually choose the use of a method which they know will result in an excessive assessment. Assessors will usually try to use or recommend to the taxpayer a method which does not result in excessive assessments. For instance, the method of 80% of book value usually will not be used when most of the equipment is new.

The illustrations given are probably over-simplified. There are two other factors that complicate the situation. First, no single cost conversion table when applied uniformly to all types of personal property will produce the desired result of actually converting to the true level of

TABLE XX

COMPARISON OF ASSESSMENTS OF MACHINERY AND EQUIPMENT BY THREE METHODS

Year Bought	Percentage of 1941 Depreciated Cost			Percentage of 1957 Depreciated Cost		
	E	F	H	E	F	H
	1941 Cost Depr.	40% Actual Cost	80% Book Value	1941 Cost Depr.	40% Actual Cost	80% Book Value
1957	100.0	80.0	160.0	50.0	40.0	80.0
1956	100.0	83.3	160.0	50.0	41.6	80.0
1951	100.0	97.3	148.0	50.0	48.6	74.0
1945	100.0	89.3	125.0	50.0	44.7	62.5
1941	100.0	111.0	80.0	50.0	55.5	40.0
1937	100.0	192.0	77.0	50.0	96.0	38.5

cost in a year different than the year of purchase. The rate of inflation has varied for different types of equipment. Some equipment may have only doubled in cost, as in the illustrations. Other types may have tripled in cost. The conversion table used in the illustrations was selected for its simplicity of application, the same reason it is commonly used for assessments.

There are two such conversion tables in common use. The one used in the illustration is commonly used for furniture and fixtures, machinery and equipment such as is usually found in office, mercantile, service and light industrial establishments. Heavy industrial machinery and equipment, usually appraised by the tax commission industrial engineer, is converted with the use of a different table. Excerpts from these two tables are shown below for comparison. Actually, for the achievement of better equalization there should be a greater number of conversion tables developed and used for different categories of personal property.

Cost Indices

	Used For Furniture, Fixtures and Light Machinery & Equipment	Used For Heavy Machinery & Equipment
1941	100.0%	100.0%
1946	125.0	130.6
1951	185.2	188.5
1957	200.0	215.6

Second, no uniform practice of allowing for depreciation can truly reflect the actual loss of value which has occurred with reference to any particular equipment. A certain type of equipment, which has a normal estimated life of ten years, may be worn out and discarded within five

years by one taxpayer, and be used profitably for twenty years by another. Furthermore, machinery and equipment may be subject to obsolescence. The development of improved models may cause a loss of value in older models which cannot be accounted for by age or physical condition alone. Therefore, an assessor must temper the use of a mechanical method of appraisal with judgment and recognition of non-typical conditions, and adjust assessments accordingly. As a result of this need, the problem of equalization is further complicated by the fact that poor judgment or lack of time or inclination to consider non-typical conditions may result in one of two things. Either unjustifiable adjustments may be made in assessments, or adjustments which are justified are not made.

Circular No. 1 of the tax commission contains the following recommendations for the assessment of particular types of personal property.

Tractors, combines and certain other farm machinery. Assessment at 50% of the "as is" values contained in a manual of such equipment published for the use of dealers in farm equipment.

Farm machinery not listed in the manual. In succeeding years the machinery shall be assessed at 70%, 50%, 40%, 30%, and 20%, successively, of factory list price.

Gasoline pumps and tanks. 50% of the average 1941 cost, installed.

Store, hotel and office furniture, fixtures, machinery and equipment. 40% of original cost until such time as book value equals 50% of original cost; then at discretion of assessor, but not less than 20% of original cost as long as the item is in use.

Miscellaneous. The circular lists a number of specific items of personal property, including butane-propane tanks, oxygen and acetylene tanks, professional libraries, billboards, and neon signs, with a suggested assessed valuation per unit to be used regardless of age.

Oil and gas well equipment. A schedule of valuations recommended by a special committee of assessors and representatives of the industry, provides a flat per-well valuation to be used according to classification of wells, regardless of equipment actually present at each well or its age or condition.

It can be noted that these recommendations are a hodge-podge of different methods, some of which conform to one of three general methods referred to as having been approved, and some of which are deviations from one of the three. Many of them represent a percentage of original cost, some represent a variation of the life schedule method, some represent a conversion to the 1941 cost level, and some represent a combination of two or more methods.

At present, the preferred method as recommended by the tax commission for most personal property, and as used by the assessors, is 40% of cost without conversion to any standard level of cost, and without annual depreciation.

Findings and Conclusions

1) The present situation with respect to assessment of personal property as a class is chaotic--one of utter confusion. There is no uniformity of methods, either as prescribed, or as applied. It cannot actually be said that there are any prescribed methods. The tax commission has merely suggested, in most instances, that certain methods may be used, and there is no firm requirement that any particular method be used, or for that matter, that any method at all be used. The result is that, within the general class of personal property, there is no equalization among various types of personal property, among owners of a given type of personal property, within counties, or among counties. This being true, it cannot be said that there is any equalization between personal property as a class and any other class of property.

This situation results partly from the very nature of personal property itself. Because of its nature, it is not easily subjected to good, efficient, thorough, and uniform assessment administration. Assessors, in general, do not possess adequate qualifications, do not have adequate specialized assistance, are not provided with adequate instructions and supervision, and are not able to obtain adequate information about the property to make use of those methods of assessment which will produce the best results. Therefore, they use the less effective methods that they are capable of using. The tax commission does not have an adequate staff, in office or field, to conduct the research necessary to the development of good methods of assessment, or to provide the instruction, information, assistance and supervision to the assessors that is needed. Furthermore, at all levels, expediency has become so ingrained that it has become natural to do the expedient thing rather than the right thing.

2) In view of this situation, it is suggested that consideration should be given to the possible exemption of all classes of personal property, or some classes of personal property, from property taxation, and the substitution therefor of some other form of taxation more suitable to this class of property and more adaptable to equitable and efficient administration. No specific suggestion is made for a substitute form of taxation. Consideration of this alternative has not been considered to be within the scope of this study assignment.

3) Livestock should be assessed according to classifications established by the Colorado tax commission, and in such assessment, the county assessor should consider variations in quality of livestock within each classification, and should also consider variations in cost of marketing livestock from different parts of the state.

4) The measure of value to be used in the assessment of merchandise and manufactures should be the average amount of moneys and credits invested at cost in such merchandise and manufactures at the end of each month during the year ending with the 31st day of December next preceding the assessment date of the current year.

5) All taxable personal property, except livestock and merchandise and manufactures, should be assessed according to a uniform method prescribed by the Colorado tax commission, which should be based upon a conversion of the cost of such personal property to the current level of cost and allowance for loss of value because of aging, wear and tear, and obsolescence.

6) Such legislation as is needed to implement the foregoing conclusions should be enacted.

X.

ASSESSMENT OF PUBLIC UTILITIES

Public utilities, the property owned by public utility corporations, as a class of property for purposes of assessment, and as assessed under present statutory provisions, defies definition. The law defines the class as including any plant or porperty owned or operated, or both, by an express company, telephone company, telegraph company, sleeping car company, car line company, railroad company, power company, pipe line company, water company, street railway company, gas company, lighting company or heating company, and "all other classes of companies, however, owned or operated and having a continuity of business in two or more counties in the state."[1]

Of course, those particular types of companies which are specifically enumerated as being public utilities are within the class by definition. However, the question of what other companies should be included is very confusing. The fact that a particular type of company is subject to regulation as a public utility has not necessarily caused it to be subject to assessment as a public utility. Inter-city bus companies, taxicab companies, scenic tours companies, radio and television broadcasting companies are but a few examples of types of companies which are subject to public utility regulation but which are not assessed as public utilities. Air line companies, which are not specifically mentioned as public utilities for assessment purposes, are assessed as such. Certain city bus lines are assessed as public utilities, although they are no longer "street railways" and although other types of bus companies are not so assessed.

The phrase in the statutory definition, "all other classes of companies, however owned or operated and having a continuity of business in two or more counties in the state," might be taken to include such companies as chain store companies, mining companies, livestock production companies, and grain elevator companies which have property in more than one county. However, these types of companies and many others which are inter-county in extent are not assessed as public utilities, and it is not suggested that they should be. On the other hand, some companies which are specifically defined as public utilities and assessed as such, operate and own property exclusively within the boundaries of a single county.

The total assessed valuation for 1958 of property which was assessed by the tax commission as public utilities was $382,769,850, representing 11.7% of the total assessed valuation of all property in the state. Table XXI shows the 1958 assessed valuations as reported by class of company by the tax commission and the relative importance of each class.

---

1. C. R. S. 1953, Sec. 137-6-39.

The "miscellaneous companies" shows in the table include The Denver Tramway Corporation, The Mount Manitou Park and Incline Railroad Company, The Pullman Company, The Railway Express Agency, Inc., and The Self Winding Clock Company, Inc. Table XXII shows the amount of assessed valuation of public utilities distributed to each county, and the relative importance of this assessed valuation in each county.

Statutory Provisions

Laws governing the assessment of public utilities are contained in Chapter 137, Article 4, Colorado Revised Statutes, 1953, and in certain sections of Articles 3 and 6 of the same chapter. These laws are very lengthy and involved. Therefore, rather than quoting them, a brief summary of their provisions is set forth below.

TABLE XXI

1958 Assessed Valuation of Property of Public Utility Corporations

Type of Company	Number of Companies	Assessed Valuation	Per Cent of Public Utilities Assessment
Railroad Companies	14	$ 128,113,640	33.4%
Air Line Companies	6	7,742,050	2.0
Telephone Companies	39	69,154,230	18.1
Telegraph Companies	2	655,610	0.2
Electric Companies	8	116,660,870	30.4
Rural Electric Companies	29	14,215,740	3.7
Gas Companies	18	7,180,770	1.9
Gas Pipe Line Carrier Companies	7	27,615,470	7.2
Pipe Line Companies	8	6,960,580	1.8
Domestic Water Companies	19	1,562,830	0.4
Irrigation Companies	2	38,750	0.1
Car Line Companies	88	1,038,940	0.3
Miscellaneous Companies	5	1,830,370	0.5
	245	$ 382,769,850	100.0%

TABLE XXII

1953 ASSESSED VALUATION OF PUBLIC UTILITIES BY COUNTIES

County	Assessed Valuation	Per Cent*	County	Assessed Valuation	Per Cent*
Adams	$19,382,770	13.1%	Lake	$ 2,507,320	7.9%
Alamosa	4,108,510	26.2	LaPlata	9,062,900	23.1
Arapahoe	13,059,670	9.1	Larimer	7,559,500	8.3
Archuleta	1,436,810	24.6	Las Animas	8,926,370	28.9
Baca	5,484,800	27.3	Lincoln	4,188,940	22.4
Bent	4,825,260	30.6	Logan	10,123,310	16.1
Boulder	17,215,150	14.4	Mesa	11,862,140	14.0
Chaffee	4,303,100	30.9	Mineral	700,140	39.1
Cheyenne	4,674,440	30.4	Moffat	1,606,670	8.6
Clear Creek	983,410	16.7	Montezuma	1,984,780	12.6
Conejos	2,312,590	22.4	Montrose	3,226,010	11.1
Costilla	1,583,840	27.9	Morgan	5,556,440	8.7
Crowley	1,478,860	19.8	Otero	6,111,520	16,3
Custer	112,250	3.5	Ouray	860,470	19.5
Delta	3,383,950	16.5	Park	423,230	5.3
Denver	81,245,270	7.6	Phillips	1,571,300	9.5
Dolores	760,780	15.1	Pitkin	1,022,360	12.6
Douglas	4,467,010	33.2	Prowers	4,847,520	18.1
Eagle	5,309,310	41.9	Pueblo	20,781,580	13.0
Elbert	3,536,760	24.8	Rio Blando	4,858,020	6.0
El Paso	14,038,860	7.8	Rio Grande	2,615,070	13.7
Fremont	6,508,720	23.3	Routt	4,242,340	19.2
Garfield	8,089,740	27.7	Saguache	674,450	6.7
Gilpin	783,750	27.7	San Juan	831,390	33.3
Grand	2,904,700	25.5	San Miguel	1,492,200	18.7
Gunnison	826,170	7.2	Sedgwick	1,633,420	11.9
Hinsdale	30,530	2.6	Summit	903,970	16.9
Huerfano	3,574,850	31.9	Teller	767,930	12.9
Jackson	1,990,370	21.7	Washington	2,503,570	5.9
Jefferson	11,853,990	6.9	Weld	21,436,350	14.9
Kiowa	3,715,640	27.9	Yuma	2,564,480	10.9
Kit Carson	1,333,180	6.9			

* Per cent of total assessed valuation of county.

The duty of making assessments on the property of public utility corporations is assigned to theColorado tax commission. The law contains lengthy provisions concerning information that is to be filed with the tax commission by various types of companies, such as railroad companies, and telephone and telegraph companies, but provides nothing concerning information to be filed by other types of companies, such as electric

companies. In general, the information required relates to the book value of the asset accounts of the company, its capital investment and funded debt, its annual earnings from operation, considerable detail about its physical plant, the number of miles of track or telephone or telegraph wire in each county, school district and municipal corporation in the state.

The law provides that the tax commission shall determine a value for the entire operating property of each company, both in and out of the state, but does not prescribe in detail how such value shall be determined. It provides that in valuing corporate property as a unit, the value of capital stock and bonds and any and all other evidence of value shall be considered. It further provides that any property owned by a corporation which is not used in the operation of its main business shall be deducted, and that such property in this state shall be assessed by the county assessor of the county in which it is situated.

The law further provides that a portion of the total value of an interstate corporation shall be allocated as the value of its property within the State of Colorado in proportion to the miles of track in Colorado as compared with the total miles of track in the system, for railroads; and in proportion to the miles of lines in Colorado as compared with the total miles of line in the system, for telephone and telegraph companies. It further provides that the amount of value allocated to the property located in Colorado shall be apportioned to counties, school districts and other taxing jurisdictions on the basis of miles of main track, for railroads, and on the basis of miles of wire, for telephone and telegraph companies. Note the distinction between miles of track for allocation of value to Colorado, and miles of main track for apportionment of value to counties and other districts. Also note the similar distinction between miles of line and miles of wire.

Actual Practice

In the assessment of public utilities there are several distinct steps. First, there is the determination of the full value of the operating property wherever located. Second, there is the allocation of a portion of that value to the State of Colorado, if the property is interstate. Third, there is the making of an assessment of the property located in Colorado taking a portion of the value to be used as an assessed valuation, supposedly equalized with valuations on other classes of property, by the use of what is known as an equalization factor. Fourth, there is the apportionment or distribution of the assessed valuation to the counties in which the property is situated. And finally, there is the distribution of the assessed valuation to the various taxing districts in each county.

Value Determination. In the determination of the value of utility properties, the tax commission considers three "indicators of value": 1)plant account or historical cost; 2) the average market value of stocks and bonds for the preceding twelve month period; and 3) capitalization of net operating revenues during a five-year period. The exact way in which

each of these three factors is used varies according to the type of company, and sometimes for individual companies, and the relative weight given to each of the factors also varies, there being, necessarily, an element of subjective judgement involved in considering the circumstances peculiar to each class of company, or each individual company.

For 1958 assessments, values were determined as follows:

For Railroads an average of values determined by:

1) Plant account, including materials and supplies, less property otherwise taxed, and less public improvements.

2) Average market value of stocks, bonds, etc., for the preceding twelve months, less properties otherwise taxed and less investments in affiliated companies.

3) Net operating revenues for five years, with federal taxes added back in, capitalized at $10\frac{1}{2}$ per cent - either the five-year average, or weighted 5 per cent for 1953, 10 per cent for 1954, 15 per cent for 1955, 20 per cent for 1956 and 50 per cent for 1957.

For electric companies, gas companies, and certain other companies an average of values determined by:

1) Plant account, including materials and supplies, at historical cost, depreciation not allowed, less properties otherwise taxed.

2) Five years net operating revenue capitalized at $6\frac{1}{2}$ per cent, weighted 5-10-15-20-50 per cent, as with railroads.

3) Average market value of stocks, bonds, etc., for the preceding twelve months, less properties otherwise taxed and less investments in affiliated companies.

For telephone and telegraph companies an average, weighted as indicated, of values determined by:

1) (20 per cent) System plant account, including materials and supplies at historical cost, less properties otherwise taxed.

2) (30 per cent) Average market value of stocks, bonds, etc., for the preceding twelve months, less properties otherwise taxed and less investments in affiliated companies.

3) (50 per cent) Five years net operating revenues capitalized at 7 per cent, weighted 5-10-15-20-50 per cent.

The foregoing is only a partial explanation of the policies and practices used by the tax commission in value determination. Some other variations of the three factors are used. However, this explanation should be enough to give a general idea of the problem of value determination.

Allocation. Various methods used in allocation of value to Colorado were as follows:

For railroads: proportion of mileage of all miles of track.

For air lines: proportion of plane time in Colorado as to time in system.

For electric companies: none interstate.

For telephone companies: proportion of mileage of line.

For telegraph companies: same.

For gas pipe line companies: per cent of investment in Colorado.

Equalization Factor. All public utility properties were assessed at 40 per cent of the value allocated to Colorado. This equalization factor of 40 per cent was reduced from a factor of 50 per cent, previously used, in recognition of the appearance that 50 per cent was too high a factor in relation to the existing assessment-sales ratio of local assessments. This reduction of equalization factor was accompanied by certain changes in methods of value determination designed to produce a better, and sometimes higher, value determination.

Distribution. Assessed valuations were distributed to counties and other taxing jurisdictions as follows:

For railroads: proportion of mileage of main track.

For air lines: on basis of landings and take-offs.

For electric companies: on situs basis according to property actually situated in each county or district.

For telephone and telegraph companies: proportion of mileage of wire.

For gas pipe line companies: situs basis.

Many problems must be considered in any effort to determine whether the laws relating to the assessment of public utilities are designed to produce just and equalized assessment, whether tax commission policies and practices are the best methods available, and whether the assessed valuations on public utilities are equalized with those on other classes of property. These problems can be enumerated in the form of questions.

1) Does the book value of the plant of a public utility company provide any indication of the true value of the company as a unit? Book values represent the cost of property at the time it was constructed, purchased, or otherwise added to the assets of the company, less depreciation. Such values, because of their historical nature, do not bear any relation to the present value of the property, for they are not adjusted for inflation or deflation of costs.

2) What are the merits of the use of average market value of stocks and bonds in the determination of the value of a public utility? In theory, the total value of the capital stock and indebtedness of a corporation may be taken as the true value of the corporation, for it is that amount which investors are willing to pay for ownership of the corporation. It is of no value as a method of appraisal, however, in the case of those corporations whose stocks are not for sale. The par value, or book value, of capital stock and bonds is as unreliable as a measure of current value as the book value of the assets of the corporation.

3) What are the merits of the use of capitalization of net earnings in the determination of value? This is a commonly-accepted method of appraisal. However, its success depends upon the correct determination of the net earnings of a corporation, and upon the use of a proper rate of capitalization. These are both highly techincal problems and require careful study.

4) Could cost of reproduction be used as a method of value determination for utility property, as it is with other property? A reproduction cost appraisal of such properties would be extremely expensive in both time and money. It is questionable whether it could be used in the appraisal of interstate corporations, such as most railroads. The plant of a utility may be subject to a tremendous amount of obsolescence or other loss of value which would be difficult to determine, except with reference to other methods of valuing the corporation as a unit. However, a reproduction cost appraisal might be most helpful as a basis of distribution of assessed valuation, regardless of the method of value determination which is used.

5) Are assessed valuations on public utility property equalized with assessed valuations on other classes of property which are locally assessed? This question is difficult to answer because it is difficult to determine the value of public utility property. There are insufficient sales of such property to establish any kind of market value to be used as a guide. If locally assessed property were assessed at 40 per cent of average market value, the use of 40 per cent of the value determined by the tax commission for utilities would be no proof that valuations were equalized. There is still the question of whether the value determined by the commission is the true value.

6) What is the best method of allocating a portion of the value of an interstate system to that portion of the system which is located in Colorado? This is a very important question. Even with a correct determination of the value of the entire system, the amount assessed in Colorado

can vary considerably according to the method of allocation. It is understood that the method now used by the tax commission allocates more valuation to Colorado than would be the case with other methods which are sometimes considered better.

7) What is the best method of distributing the assessed valuation to the various taxing jurisdictions? There is much objection to a mileage basis of distribution because it does not appear to give valuation to jurisdictions wherein terminal facilities are located commensurate to the value of such facilities. On the other hand, there is much objection to the use of situs distribution for electric companies, which results in the concentration of valuation in the districts in which power plants are located, rather than those in which power consumers are located.

A factor affecting any study of the assessment of public utilities is the fact that the law provides that information contained in the annual statements submitted by the public utility corporations to the tax commission are confidential and are to be used only by the commission for the purpose of assessing the property of the corporations.[2] The unavailability of these statements for study is a handicap to anyone undertaking a study of public utility assessments. This handicap was overcome to an extent during the course of this study. Forty-one of the corporations, whose assessed valuations represented ninety-four per cent of the total assessed valuation of public utilities, were requested to provide the Legislative Council staff with copies of the statements for the latest year. Twenty-eight of the companies responded by sending copies of their statements.

Because of the highly technical and interstate nature of the problem, it was recognized that the study of the assessment of public utilities should be done by a recognized expert in the field of public utility appraisal, or that such an expert should be retained as a consultant. With this in mind, the forty-one corporation sample was selected for study and the scope of a proposed study was outlined to include: a determination of the full cash value of the selected utility properties; a study as to whether the methods now used by the tax commission result in the determination of such value; recommendations for any changes in methods needed for the determination of such value; a study of the tax commission organization for assessment of utilities; a determination of whether and the extent to which our laws now prescribe methods for assessing all classes of utilities and whether such prescriptions will produce equalized assessments; a determination of what legislative reform should be proposed; a determination of whether present laws relating to allocation and distribution of public utility assessments are appropriate to achieve equalized assessments of the properties in each taxing jurisdiction; and what different provisions for allocation and distribution might be considered.

---

2. C. R. S. 1953, Sec. 137-6-22.

Seven different individual consultants and appraisal firms of national reputation were requested to make estimates of what they could do in the way of conducting such a study and what they would charge for such service. Responses indicated that sufficient funds were not available to pay for the study and that such a study could not be completed by January, 1959.

Next, the size of the study sample was reduced to thirteen companies, representing seventy-two per cent of public utility assessments, and the scope of the study was limited to include only a determination of full cash value of the selected corporations by accounting methods, a study as to whether the methods now used by the tax commission result in the determination of such value, and recommendations for changes in methods of determining such value. The reduced requirements were submitted to the consultants for an estimate by them of what they could accomplish within the existing time and cost limitations.

Responses were received from two appraisal firms. Their proposals were both so limited in scope that it was felt by the Legislative Council committee on the study of assessment methods that it would be inadvisable to accept either one. It appeared that what would be accomplished by so limited a study would be of little real value, and would not truly answer any of the questions outlined in the preceding paragraphs. Therefore, it was recommended by the committee that no further consideration be given to the problem of the assessment of public utilities until after the report on the assessment of locally-assessed property was completed, and that the next General Assembly make provision for a study of the assessment of public utilities of sufficient scope to be worthwhile.

Findings and Conclusions.

It is not known whether the assessed valuations of public utility property as made by the Colorado tax commission are equalized with those of other property. It is not known whether the methods of value determination used by the tax commission result in the determination of the full cash value of such property. It is not known whether the methods of allocation of value used by the tax commission are proper. It is not known whether the forty per cent equalization factor now used results in equalized assessments. It is not known whether the present methods of distribution of valuation to counties and their political subdivisions result in a satisfactory division of the valuations.

The answers to these questions can be learned only by a thorough study of the problem, which should be undertaken as soon as possible. In order to facilitate such study, the annual statements of public utility corporations to the tax commission should be made available to the Legislative Council for the purpose of studying methods of assessment.

XI

ADMINISTRATIVE PROCEDURES

The term "administrative procedures" is used in this report to refer to those procedures which are not methods of determining assessed valuations, but are related and essential to the process of assessing property. They include: the maintenance of necessary records of property and its ownership, of appraisals, and of annual assessments; matters relating to the obtaining of returns from owners of property; matters relating to the manner of listing property for assessment; the compilation of the total assessed valuation by classes of property to be submitted to the tax commission as an abstract of assessment; the compilation of the total assessed valuation of the county and of each unit of government within the county which levies a tax, to be certified to each such levying body; the preparation of the tax list and warrant for delivery to the county treasurer; and numerous other administrative functions.

The exact procedure followed in performing these administrative functions in each county may seem of little importance so long as they result in adequate performance of the various functions and suit the desires of each county assessor. However, it is desireable that the most efficient procedures possible be used in each and every county in order that the least possible expenditure of man-power and public funds is devoted to the performance of purely routine administrative functions, leaving a greater amount of time and money to devote to the performance of the primary function of assessing property. Inefficient, inadequate, and obsolete procedures are, today, seriously detracting from the ability of assessors to perform this primary function adequately, and are contributing to the failure to achieve satisfactory assessment results.

Furthermore, aside from the need for efficiency, adequacy and modernization in administrative procedures, there is much to be said for the use of uniform procedures and records in all counties, varied only for the purpose of meeting the requirements of varying situations. Many persons, representing various private interests and public agencies have occasion to go from county to county to obtain information from the records of the county assessors. Personnel of the tax commission also must go from county to county inspecting records in the course of their assignments. If uniformity of records is encountered in each county, these persons soon become familiar with the system in use and can obtain the information they desire with little assistance from the personnel of the assessor's office.

If, however, a different system of record-keeping is encountered in each county visited, the person must seek assistance from someone in the assessor's office to find the information he desires, or at least to obtain an explanation of the system that is in use. This situation can be very wasteful of the time of both the person seeking information and of the personnel in the assessor's office. This very lack of uniformity has been a handicap in the course of this study.

The law provides that the tax commission shall have and exercise the power and authority "to prescribe a uniform system of procedure in the assessors' offices and the form and size of all tax schedules, tax rolls and warrants, field books, plat and block books and maps, and all other notices and forms furnished to taxpayers, and all blanks, books and records used in the offices of county assessors. No other system, forms or blanks shall be used in such offices excepting those prescribed by the commission."[1] In spite of this provision of the law, the tax commission has never been successful in prescribing and enforcing the use of uniform systems, blanks, books, records, or forms.

To analyze the procedures, records and forms being used in any detail would require too much space and would be of little value in leading to suggestions for legislative action. It is beyond the scope of legislative action to prescribe all the details of administrative routine. Therefore, only sufficient explanation and illustration of the problem will be presented to show the need for administrative action to improve such procedures, and to indicate what legislative action might be taken to require such improvement.

Property Ownership Records

A basic function of the county assessor's office is the maintenance of records of real property located in the county that is subject to taxation and its ownership. These records are usually kept in one of three forms: a township plat book, a block book, and, where needed, a mining claim register. The purpose of these records is to provide information for the use of the assessor in assessing property and for the use of anyone else who has occasion to seek information concerning the ownership of real property in the county.

Property which is surveyed and described for conveyance, assessment, or any other purpose according to the township system, by portion of section, township and range, is recorded in the township plat book. Property which has been platted as townsites, additions or subdivisions, described by lot and block number, is recorded in the block book. Mining claims, which are described by name and survey number of each claim, without reference to exact location, are recorded in the mining claim register.

There is no standard form of any of these record books in use throughout the state. Some township plat books consist merely of individual township plats with the boundaries of each tract of land drawn thereon, and the name of the owner of each tract entered within the boundaries of the tract on the plat itself. Others, in addition to the plats, contain record sheets whereon are recorded the names of owners. In some counties the owner of each forty

---

1. C.R.S. 1953, Sec. 137-6-12 (3)

acres is entered each year. In other counties a number is assigned to each tract, however, large or small, and the name of the owner is recorded once for each tract after the number assigned to it. In some counties a permanent record of the person to whom property is assessed each year is kept. In others, only a record of current ownership is maintained in easily changeable form.

Similar variations in form are found among block books and mining registers in use throughout the state.

All of these record books meet the requirements for which they were designed, in varying degrees. They do provide a record of property ownership. However, some are excessively cumbersome to maintain and to use. Some are not kept up to date. Some are of questionable accuracy. The variety of forms in use are confusing to those who are referring to records in different counties.

Listing Real Property for Assessment

The law provides that real property shall be listed each year by the assessor, and it has numerous provisions relating to the manner of describing real property, to whom it shall be assessed, and so forth.[2]

It does not require that the assessor obtain a signed schedule of real property from its owners, as is the case with personal property. Therefore, all an assessor need do as an original assessment each year is to list all taxable real property in his county, describe it according to the provisions of the law, include as part of the listing the name and address of the owner, and make an assessment upon the basis of his appraisal of the property.

The operation of listing real property, as distinct from appraising and assessing it, is primarily one of listing correct descriptions of each separate property, consolidating or dividing descriptions when property is conveyed, and keeping current with changes of ownership. The volume of work involved is substantial, even in the smallest counties. The listing must be made each year on tax schedules and tax lists.

In those counties which have adopted the use of mechanical equipment for this purpose, the work of listing has been greatly simplified. The description of each separate property, together with the name and address of its owner, is maintained current on metal plates. From these plates any form of listing for schedules, tax lists, or any other purpose, can be easily and readily accomplished. However, sixteen counties do not have such equipment. In these counties, whenever any listing is necessary, it must be done in long-hand or on a typewriter. Tremendous numbers of man-hours are spent in this process, and the possibility of error with each listing is very great. One advantage of the use of metal plates is that if the plate is correct, all listings will be correct.

---

2. C.R.S. 1953, Sec. 137-3-13,14, 137-12-8, 9.

Some counties are so small and have a small enough job of listing, hat they truly can not afford to purchase such equipment, and if they hould be able to afford it, such a purchase would not be economical. lowever, judging by the experience of those counties which have installed the equipment, there are many counties which do not now have it which could well afford to purchase it, and would actually save money by so doing.

In one such county, where the assessor's office is manned by an assessor and one deputy, with no clerks, so much of the time of the two men is spent in listing property on schedules and tax lists that insufficient time is left each year for proper appraising and assessing.

A special problem in connection with listing real property is that of who should be listed as owner. This problem is one of date of conveyance. Some assessors list real property each year to its owner on the assessment date of the current year, February first. Others make changes of ownership up to July first. The latter practice is based upon the fact that assessments must be completed on that date, and on the fact that the law provides that in the case of conveyance of real estate, and in the absence of other agreement, the grantee shall pay the taxes for the current year if the date of conveyance is prior to July first, and that the grantor shall pay them if the date is subsequent to July first.[3] Other assessors make changes in ownership as late in the year as they can be made before the property is listed in the tax list, in order that the latter will contain the name of owners as of the time the list was prepared.

From one point of view, it is desirable that the tax list, when delivered to the county treasurer, contain the names of the persons who are owners of property at the time of the delivery of the tax list. This more nearly assures that tax notices will be sent to the current owners of property, rather than to former owners. However, the attempt to make corrections in listings after the assessment date adds work and confusion.

Listing Partially Owned or Secured Property. The law provides that: "For purpose of taxation, it shall make no difference that the possession, use or ownership of any taxable property is qualified, limited, not the subject of alienation, or the subject of levy or distraint separately for the particular tax derivable therefrom; provided that where any property within this state is mortgaged, conveyed, or pledged for the security of a loan or debt then owing, the property and the notes, mortgage, trust deed, deed of trust, contract or other conveyance shall be assessed as a unit, and as one and the same, and as of one value, and as the value of said property so mortgaged, conveyed, or pledged only, and any such notes, mortgages, trust deeds, deeds of trust, contracts or conveyances shall not be otherwise assessed."[4] This section of the law is rather confusing, but it means

---

3. C.R.S. 1953, Sec. 137-12-16.
4. C.R.S. 1953, Sec. 137-12-9.

essentially that one assessment shall be made of the full value of real property in the name of the person having fee title, and that no separate assessment shall be made of a portion of the value to the holder of a mortgage, deed of trust, or other such partial interest.

Another section of the law provides that: "Any person having or claiming to have an undivided interest in lands, or any lien upon a parcel or tract of land, or any inchoate interest, possessory interest, equitable or other estate less than the fee, may file a schedule specifying such undivided interest or estate, for the assessment of taxes thereon. All such undivided interests or estates, and such liens and inchoate interests so specified, shall be assessed, advertised for sale, sold for non-payment of taxes assessed thereon, and redeemed for such sale in like manner and with like effect as estates in fee simple and entireties are assessed, advertised for sale, sold, and redeemed from sale for taxes."[5]

These two sections seem to be conflicting to the extent that the latter seems to state that a separate assessment may be made on an interest in property based upon an indebtedness. On the other hand, some partial interests, such as leasehold interests in public property, which are commonly subjected to assessment, are not mentioned. These sections of law should be clarified to provide for assessment of the entire valuation of real property to the fee owner, except that undivided interests, possessory rights or leasehold interests in public property, equities in state and school lands purchased under contract taken from the state, and coal, mineral, or oil and gas rights separately owned, may be listed and assessed separately.

Obtaining Return of Taxable Personal Property

The Assessment Date. By law, the official assessment date is designated as the first day of February in each year.[6] This is the date on which all taxable property in a county becomes subject to assessment. This date was established, effective in 1958, by action of the General Assembly in 1957.[7] Previously, it had been March first, and at an earlier time, April first.

A change of the assessment date to January first is desirable for a number of reasons. First, an early assessment date gives the assessing official a longer assessing season, a longer time in which to complete the work of making original assessments. At present, assessments must be complete before the first day of July. A February first assessment date, therefore, gives the assessor a period of five months in which to make assessments. A January first assessment date would add another month to this period.

In addition, a January first assessment date is more logical and more consistent than any other. There is no particular reason why another date than the first day of the year should be designated. It would conform to the

---

5. C.R.S. 1953, Sec. 137-3-13 (2).
6. C.R.S. 1953, Sec. 137-12-1.
7. House Bill No. 4, 1957.

alendar year and to the fiscal year used for accounting purposes by most ersons. With assessments, such as those on merchandise, which are based on the average investment in merchandise for the preceding year, and on extractive land, which are based on the annual production for the preceding year, a January first assessment date is better. For calculation of depreciation, particularly on machinery and equipment, a January first date is better. And for those purposes for which they may be used, the year-end financial statements of most businesses would be usable without adjustment to reflect conditions existing on a later assessment date.

There seems to be but one objection to the designation of January first as the official assessment date. This objection has been voiced by the livestock interests of the state, and was primarily responsible for the fact that the January first date was not established in 1957. This objection is that if the assessment date were changed from February first to January first, livestock which has not been marketed during the fall and winter months prior to January first, but which is marketed during the month of January, will be subject to assessment. The livestock interests claim this would be unjust because a considerable number of livestock are held over for marketing in January.

Exceptions to Assessment Date. There are certain other exceptions to the provision of law that property shall be assessed in the county where it is situated on the assessment date. These relate to the intercounty and interstate movement of livestock, livestock fed in transit, property brought into the state after the assessment date, and merchandise and manufactures.

Division of Livestock Assessments Among Counties. The law provides that when livestock is herded or grazed in two or more counties during the year, the assessment on such livestock shall be divided among all of the counties in which herded or grazed in proportion to the time spent in each county. The assessor of the county in which the livestock is located on the assessment date lists and assesses the livestock, divides the assessment among the counties, gets the owner to sign an agreement for such division,[8] and sends copies of the agreements to the assessors of the other counties.

This procedure works reasonably well in the case of those herds or flocks which follow a normal grazing pattern year after year. The owner has an established schedule which he follows. He knows that on or about a certain date he will move his stock from one county into another, that they will remain there for a fairly definite period of time, after which they will be moved into a third county or back to the first. This schedule is followed closely, barring unusual range conditions. However, many owners of livestock, particularly those who do not own all of their own range, may be unable to establish and follow such an unchanging schedule of operations. Some who, on the assessment date, plan to keep their livestock in their home county during the entire year, may find that they have to make an unplanned move in order to have sufficient pasture for the stock.

---

8. C.R.S. 1953, Sec. 137-3-33.

These latter instances present a difficult problem to the assessors concerned, one which is not adequately provided for in the present law. The responsibility for assessment and division of assessment is placed upon the assessor of the county in which the livestock is located on the assessment date. No other assessor can legally make such an assessment and division. In the case of an unplanned movement of livestock, the first assessor probably is not aware of it. The second assessor can do no more than make a request of the first assessor that he be given a division of the assessment. Many assessors are reluctant to change an assessment and division late in the year, and, therefore, the first assessor may ignore the request. The second assessor sometimes proceeds to make an assessment of the livestock for the period of time it is in his county, legal or not, thereby causing a double assessment and much confusion.

Some clarification of this law is also needed. The method followed in dividing livestock assessments among counties is to divide the number of livestock, rather than the amount of assessed valuation. For instance, if an assessment on one hundred head of cattle is to be divided between two counties, in each of which the cattle are herded or grazed for six months, the division would be on the basis of fifty head of cattle to each county. The law is not clear as to whether this practice is the intended method of division. It should be clarified. Furthermore, the law now specifies no minimum period of time for such division. Presumably, a county could receive a division for one day, which would be ridiculous.

Assessment of Livestock Fed in Transit. Another problem in the assessment of livestock in feed-lots, ordinarily referred to as "fed in transit". The main aspect of the problem is that there is movement in and out of the lots during the year, and the period of time spent in the lots is variable. There is a specific provision of law that: "All livestock brought into the state...to be fattened on agricultural products, and all livestock taken from one county into another county within the state for this purpose shall be valued for taxation within the county where fed at such a proportion of their full cash value as the time they are within the county for the current year bears to the full year."[9]

It would seem that each feed-lot operator could be assessed for the livestock in his possession on the assessment date for a full year, the same as any other owner of livestock. He could in addition be assessed for any other livestock purchased after the assessment date for the length of time in his possession, provided they came from outside his county. As can be seen, the provisions of law relating to this problem are confusing. Some assessors attempt to assess all livestock which pass through a feed-lot at a certain amount per head per month, but this is done only during the period from January 1 to July 1.

From one point of view it would appear that feed-lot operators are merchants, buying and selling a commodity for profit. Therefore, they should be assessed upon the average of moneys and credits invested in livestock during the year, regardless of whether such livestock had been individually assessed as such previously. However, the present statute forbids assessment in this manner.[10]

---

9. C.R.S. 1953, Sec. 137-3-34.
10. C.R.S. 1953, Sec. 137-3-25.

Property Brought Into the State After the Assessment Date. Another exception contained in the law to the provision that all taxable property shall be listed and assessed in the county where it is situated on the assessment date relates to property brought into the state from another state after the assessment date. The law provides that if any taxable personal property is brought into this state for any purpose after the assessment date, the owner shall file a schedule thereof with the assessor, and that "it shall thereupon be listed by the assessor and be assessed for the then current year", apparently for the full year. It provides, however, that if such property does not remain in the state until the next assessment date "then such property shall be valued for assessment at such proportion of its full assessed value as the time within the state bears to the full year, but in no event shall such time for computation be less than ninety days except as otherwise provided for by law."[11]

With reference to livestock, the law provides that "whenever livestock which is ordinarily maintained in Colorado shall be removed during a part of the year from counties of this state into another state for a period of thirty days or more, and shall thereby establish a tax situs therein, the amount of valuation to be assessed in Colorado against such livestock shall be exempt from paying taxes on the proportionate amount of taxes which would otherwise be due in Colorado for that period during which said livestock has been maintained in another state."[12]

The law also provides that: "Whenever livestock which is ordinarily maintained in another state shall be maintained during a part of the taxable year in this state for a period of thirty days or more, it shall be deemed to have established a tax situs within Colorado, and the amount of such livestock shall be exempt from paying taxes on the amount of valuation which would otherwise be allocated to Colorado; provided that this subsection shall apply only to such states as are governed by similar reciprocal tax laws applicable to Colorado, and that in all instances livestock shall be assessed and taxed as otherwise provided in this section."[13]

It will be noted that there are many inconsistencies in these provisions, aside from the fact that livestock is treated differently than other personal property. For personal property, other than livestock, if it is brought into the state July first it is subject to a full assessment, but if it is then removed from the state on October first, it is subject to only one-fourth of a full assessment. Property which is in Colorado on the assessment date is subject to a full assessment, even though it may later be moved out of the state, unless it is livestock, in which case its valuation may be reduced according to the time it is out of the state, provided it is only temporarily out of the state.

---

11. C.R.S. 1953, Sec. 137-3-3.
12. C.R.S. 1953, Sec. 137-3-33 (3).
13. C.R.S. 1953, Sec. 137-3-33 (4).

The Measure of Value of Merchandise and Manufactures. As explained in Chapter IX, the measure of the value of merchandise and manufactures is not the amount invested in such merchandise and manufactures on the assessment date, but the average amount invested during the preceding year.

The Procedure of Obtaining a Schedule of Personal Property. The first step in making an assessment on personal property is obtaining a schedule of such personal property from the person who owns it, or has it in his possession or under his control. At present, the law provides that on the assessment date in each year, or as soon thereafter as practicable, the assessor or his deputy shall call at the residence or place of business of each person in his county who owns or has in his possession, or under his control, any taxable personal property which was in the county on the assessment date.

At the time of such call the assessor shall obtain from such person a schedule, signed under oath, listing all such taxable personal property, or he may leave the schedule with such person, to be returned to him not later than the first day of May next following. The assessor is also required to mail a schedule to each non-resident owner of taxable personal property, such schedule to be returned to the assessor not later than the first day of May.

The law further provides that, at any time, such person shall furnish such information or records for examination as may be required by the assessor to make a proper and correct assessment. If, on the first day of May, the assessor has received no schedule for any personal property known by him to be taxable, he shall make an assessment based upon the best information obtainable by him. This is known as an arbitrary assessment. No assessment shall be rendered invalid by reason of the failure of the assessor to demand or secure the schedule required prior to making the assessment.[14]

These provisions of the law are inadequate in that they do not place enough responsibility upon the owner of taxable personal property to file a schedule for assessment, and no effective penalty is provided for failure to do so. Under present law, the assessor, typically, attempts to make personal contact with each owner of personal property. He and his deputies travel about the county calling at the homes or places of business of all such persons. However, since people are not always at home or at their places of business when called upon, the assessor and his deputies may make repeated unsuccessful attempts to see many property owners, thereby expending considerable time and money. It is not unusual for an assessor, particularly in a rural area, to spend an entire day and drive many miles to complete only a few schedules. Cases of completely unsuccessful days of endeavor have been reported.

---

14. C.R.S. 1953, 137-3-6.

Attempts to notify persons that the assessor will call on a certain day seem to have little effect. The notice is ignored or forgotten by some. Since it is not possible for the assessor to set a schedule of calls and adhere to it, and since people do not like to wait all day at home for an expected call, a person may be temporarily absent when the assessor calls, in spite of prior notice. Notification of intention to call may merely serve as a warning to the property owner to be unavailable on the day designated. Leaving schedules at the time of the first call is ineffective, for they usually are not returned.

Assessors do strive diligently to make all assessments of personal property by personal contact with the owners of the property. The making of arbitrary assessments upon the basis of the best information obtainable is not very satisfactory. Such assessments are usually not correct, and they result in considerable controversy and confusion, extending in some cases over a period of several years. If the arbitrary assessment is lower than a correct assessment would have been, the person assessed is likely to accept it, pay the tax levied upon it, and continue to avoid correct assessment. If, as sometimes happens, an assessor makes an arbitrary assessment based upon the previous year's assessment, not knowing whether the property has remained in the county, the assessment may be erroneous and the tax levied thereupon may have to be abated. The property owner typically does not object to the erroneous assessment until after he has received one or more tax notices in the year succeeding.

There is nothing in the law at present which forces a person to file a schedule before a certain date. The only result of failure to file is the making of an arbitrary assessment, which may be more acceptable to the property owner than a correct assessment would have been, and which, in any event, can be adjusted to a correct assessment at a later time, causing confusion and extra work on the part of the administrative agencies.

Reviews of Assessments

After an original assessment is made it is necessary that the owner of taxable property have an opportunity to object to the assessment and to have his objections reviewed and either rejected or acted upon by way of corrective action. The law provides that prior to the first day of July the assessor shall mail to each person, whose personal property has been assessed at a valuation other than that given in the schedule filed by such person or whose lands or improvements have been assessed at a valuation higher than that of the preceding taxable year, a statement of such increase in valuation. It also provides that prior to the first of July, the assessor shall give notice, by publication in a newspaper published in the county seat, or by posting notice, if there be no such newspaper, that on a given day he will sit to hear any and all objections to the "assessment roll."[15]

It provides that any person who is of the opinion that "his property has been twice assessed", or that "property exempt from taxation has been assessed", or that "personal property has been assessed of which said person was not possessed at the time of the assessment", or that his

---

15. C.R.S. 1953, Sec. 137-3-37.

"property has been assessed too high", or that his "property has been otherwise illegally assessed", may appear before the assessor and make known to him "the facts in the premises". The assessor must sit on the days published and until the first meeting of the county board of equalization, which is the third Monday in July, and hear the objections of such taxpayers as may appear before him. If "in any particular the assessment complained of is erroneous under the statutes, the assessor shall correct the same". In considering such objections the assessor shall "take into consideration the value as fixed by the assessor upon other similar assessable property similarly situated".[16]

If the assessor shall refuse to change or correct the assessment complained of, he shall give written notice to the person of the grounds of his refusal, such notice to be mailed before the first day of the meeting of the county board of equalization. The person whose complaint has been so refused may then appear before the county board of equalization, which meets from the third Monday in July to the twenty-eighth day of July. He must file a petition with the board on which the property claimed to be erroneously or unjustly assessed is identified, and the petitioner states "the sum at which it is assessed, its true cash value" and "what is a just assessment thereon compared with other like property."

The board shall take into consideration the value as fixed by the assessor upon other similar assessable property similarly situated and hear such testimony as may be produced. "The board shall either grant or refuse the prayer of the petitioner, in whole or in part, as may seem just and proper" and the members "may correct any error or mistake in such assessment made by the assessor under the law whenever, in their judgment, justice and right may require it".[17]

If the petition is denied by the county board of equalization, the petitioner may appeal from the decision of the board to the district court of the county wherein said property is assessed, which appeal "shall be taken on or before the first Monday in January following said assessment".

It appears that assessors,in general, are complying very well with the law requiring notices to the taxpayer, and publication of notice, that they are sitting to hear complaints of taxpayers, that they are correcting many erroneous assessments at the time of such hearings, and that county boards of equalization are hearing appeals from the assessor and are in some few cases ordering corrections to be made by the assessor. However, the provisions of the law are insufficient to afford adequate opportunity for each taxpayer to protest his assessment at the proper time and place. Perhaps, this last statement is untrue if it is assumed that every taxpayer is informed in the law and takes enough interest in his property taxes to obtain information as to the amount of his assessment. However, the procedure is weak at the point of notification.

---

16. C.R.S. 1953, Sec. 137-3-38.
17. C.R.S. 1953, Sec. 137-3-37.

The law requires no more than that those persons whose personal property has been assessed at a higher valuation than that given in the schedule filed by them, and those whose real property has been assessed at a higher valuation than for the preceding year shall be notified. What about those persons whose personal property has been assessed without a schedule having been filed? What about those persons who do not know what the assessed valuation on their real property is, persons who have purchased property recently and have never determined what its assessed valuation is? Shouldn't all taxpayers be notified each year of the assessed valuation placed upon their property and be informed of their rights to object thereto?

A result of this weakness in the requirement for notification is that relatively few people appear to complain at the designated time, and very few people appear before the county board of equalization. Instead, the majority of complaints occur after the tax notices are received the following year. Many petitions for abatement or refund of taxes are received and acted upon after the taxes have already become due and payable because no complaint was made at the proper time.

Another fault of the present provisions for hearing complaints is that the time allowed for such hearings is too short to permit careful consideration of all complaints if they are numerous. The assessor has from eight to thirteen office days in which to hear complaints, depending on the annual variations of the calendar. The county board of equalization has from five to ten office days in which to hear petitions, depending on the annual variations of the calendar. Actually, at present, this time is sufficient for the hearing of such complaints as develop during the designated time. However, if through more thorough notification, a greater number of legitimate complaints were encouraged, a greater amount of time might be required.

The Abstract of Assessment

The law requires the county assessor, when he has completed the assessment of all taxable property each year, to prepare an abstract of assessment, which is a compilation of all assessments. He must subscribe to an oath, in person and not by deputy, that he has "assessed the taxable property situated" in his county "for the current year and at the true and full cash value thereof and that the foregoing abstract of assessment is a true compilation of each and every schedule." On or before the first day of August, the assessor must transmit to the tax commission a copy of his abstract on a form prescribed and supplied by the tax commission.

The tax commission is authorized to prescribe the form of the abstract and "to classify, diminish or add to the forms of abstract, and to require such different, or further matter to be returned as it may deem advisable."[18]

---

18. C.R.S. 1953, Sec. 137-3-40, 42.

The present form of the abstract of assessment, as prescribed by the tax commission, requires that the total assessed valuation of each class of property, as listed on the form, be returned. It is divided into three main sections: real property; personal property; and public utilities assessed by the tax commission. Each of these sections contains sub-sections, which in turn are composed of individual classes of property.

In the early chapters of this report all of the classes currently included in the abstract have been listed in reporting the amount of 1958 valuation for each broad class of property. As an additional example, "Farm Lands" is a sub-section of "Real Property"; it consists of the following specific classes: "Irrigated Land (including Orchard Land)", "Suburban Tracts", "Meadow and Irrigated Pasture Land", "Dry Farm Land", and "Grazing Land".

The task of compiling all of the schedules of property which have been received or prepared into an abstract of assessment is one of the major administrative tasks of the assessor's office. The tax schedule usually is designed so that the assessed valuation is entered on it according to the classes of property required by the abstract. After the schedules are completed, the assessor must then, in some manner, tabulate all of the assessments by class and arrive at a total valuation for each class. The most common way of doing this is by posting each separate valuation appearing on each schedule into a specially prepared book containing columns for each class of property. Each schedule of real property may contain as many as seven different items to be posted to different classes, and each schedule of personal property may contain as many as fifteen different items to be posted to different classes.

When all assessed valuations have been posted in this manner, the columns are totaled to arrive at a total valuation for each class of property, and the total number of units (acres, heads of livestock, number of tractors, etc.) assessed, and from these an average valuation per unit is calculated.

In posting from the schedules to the columnar book, in addition to the volume of work involved, there is also a very great possibility of error. Figures can be posted to the wrong column, can be altered in transcribing, or can be omitted entirely. Therefore, all of the posting must be carefully rechecked. There is also possibility of error in totaling all of the columns. It would be a rare case where, on the first attempt, the totals of the individual classes would be found to equal the total valuation of the county.

A few of the larger counties have adopted machine methods of compiling the abstract. These are of three types. One is the sensimatic type of adding machines which will tabulate and add several columns at once. With the use of these machines, the processes of posting and adding are combined, much work is saved, and greater accuracy achieved. One county has adopted the use of a cash register type machine which can maintain a simultaneous cumulative total on a large number of separate classes of items as they are entered according to a designated code system. One county has a complete

machine records setup in which assessment information is entered on punched machine record cards, and from which information can be readily compiled in any form which might be desired. It is not suggested that these methods be adopted by all the counties for the cost of the equipment is so great that few counties could afford it.

Another factor which complicates the task of compiling the abstract is the changes in the form of the abstract which may be made annually. The assessors usually design their schedules on the basis of the previous year's abstract form. Their columnar books are designed to match. They start compiling the abstract as soon as the first schedules are filed. (It usually is not possible to wait until the year's assessments are complete before starting the compilation.) At some later date, the tax commission may decide to change the form of the abstract, and knowledge of these changes may come to the assessors only a month or two before the abstract is due to be submitted to the tax commission. Therefore, an abstract which has been partly compiled on the basis of one set of classifications may have to be re-done, in part, to reflect the changes that have been ordered. Some of the changes of form that were ordered for the 1958 abstract are listed below.

The class "Fruit and Vegetable Tracts", which had been a catch-all classification for any small tracts of rural land, many of which were not used for agricultural purposes, were required to be put in the appropriate agricultural classification. Two new classes, "Suburban Tracts" and "Mountain Home Sites" were added for those rural tracts which are not agricultural in use. The various improvements classifications were revised. The 1957 classification of "Furniture and Fixtures" was subdivided into four more detailed classifications. Several other changes of a similar nature were made.

It is desirable that the form of the abstract be changed from time to time to improve the usefulness of the information reported. However, assessors should, if possible, be informed of changes before the assessments for the season are undertaken.

In spite of the tremendous amount of work involved in compiling the annual abstracts, the information thereby provided to the tax commission, and by it to the general public, is of limited value. They do provide a means of determining the total valuation of each county and of the state, and they do provide the total valuation, and average valuations per unit, for those classifications which are prescribed by the tax commission. However, these totals and averages are of relatively little value in determining whether valuations are equalized without consideration of much additional and more detailed information. And for statistical purposes their value is limited by the classifications which are included.

A good illustration of the limited value of the present form of abstracts was developed during the course of the sales ratio study. It was decided that only a classified ratio study would be of any real value for the study of assessment methods, and that the classifications contained in the current abstracts were of no use for this purpose. Therefore, the county assessors were requested to submit a special report to the Legislative Council according to specified classifications. The compilation of these reports represented a great amount of extra work to the assessors. Many of them were inclined to ignore the request, but, over a period of seven months, the reports were received from all counties.

Certification of Valuations to Taxing Jurisdictions

Prior to October first in each year the county assessor is required to certify to the county superintendent of schools the total assessed valuation in each school district in his county, and to the governing body of each municipality or special district in his county the total assessed valuation in each municipality or special district. Ordinarily, this certification is not especially difficult, as the compilation of total assessed valuations within each taxing district is done at the same time as the compilation of total assessed valuations for classes of property.

However, when a new taxing district is organized and prepares to levy a tax, an extra load may be placed upon the assessor's office. Typically, the assessor is requested to supply the organizers of the district with a list of property owners within the proposed district before it is organized. Then he must certify its total valuation prior to October first after it is organized, and prepare to extend its tax levy on the tax list. This process becomes a difficult problem when a district is organized late in the year, proposes to levy a tax in the year of its organization, and expects the county assessor to provide service to it with inadequate time allowed for the performance of the necessary work. At present, there is no statutory deadline after which a newly organized district is not permitted to levy a tax for the current year.

Assessment of Mobile Homes

Another procedural problem with which the county assessor is confronted is the assessment of mobile homes, or trailer coaches. The Constitution provides that "the general assembly shall enact laws classifying motor vehicles, trailers and semi-trailers and requiring the payment of a graduated annual specific ownership tax thereon" which tax "shall be in lieu of all ad valorem taxes upon such property" except "that such laws shall not exempt from ad valorem taxation motor vehicles, trailers and semi-trailers in process of manufacture, or held in storage, or which constitute the stock of manufacturers, or distributors thereof or of dealers therein."[19]

---

19. State Cons., Art. X, Sec. 6.

property tax assessment. The law provides that "with each deed, instrument or writing to be filed for recording, whereby any real estate or interest in real estate having its situs in this state shall be granted, assigned, transferred, or otherwise conveyed to, or vested in, the purchaser or purchasers, or any other person or persons, there shall be submitted, in duplicate, a certificate which shall state: (a) The total consideration, in terms of dollars, paid and to be paid for the real estate or interest in real estate so granted, assigned, transferred or otherwise conveyed; and (b) The relationship (by consanguinity or affinity), if any existing between each grantor and each grantee."

It further provides that such certificate shall be "on a form to be prescribed and furnished by the Legislative Council", and that such certificate shall be filed with the county assessor, who will enter the assessed value of the real estate conveyed and file them with the Legislative Council.[23]

Many problems have developed in the administration of this act. The first one to appear was one of interpretation. The question was raised as to what types of instruments required the filing of certificates. Early opinions by various district attorneys were very broad and as a result many types of instruments, such as oil and gas leases, real estate mortgages, and deeds of trust, which were not of any use in the sales ratio study were being recorded. An opinion of the Attorney General on September 4, 1957, adopted a more restricted interpretation, and as a result, most of the certificates which were being filed unnecessarily were stopped. Actually, for the purpose for which the certificates are required only deeds whereby fee title to real property is conveyed, or agreements of purchase and sale for the conveyance of fee title, are of any value, and the requirements of the law might well be limited to these instruments.

The law requires only that the total consideration paid and to be paid for real estate, the relationship between each grantor and each grantee, and the signature of each purchasor, or his agent, shall be stated on the certificate. The certificate form designed and supplied by the Legislative Council provided for more information, all of a reasonable nature, but many purchasers have declined to enter more information on the certificates than is specifically required by the law, and the county clerks have not required them to enter the additional information. As a result many certificates have been received without even the legal description of the property conveyed.

Even the information requested on the certificate itself has proven inadequate for sales ratio purposes. It has been necessary to obtain additional information by means of correspondence with the purchasers, or by field investigation, in order to judge the usability of many conveyances obtained for the sales-ratio study.

---

23. C.R.S. 1953, 118-6-21 to 33.

The law provides that "Every owner of a ... trailer coach or mobile home which is primarily designed to be ... drawn upon any highway in this state ... shall apply to the department of revenue and shall obtain registration therefor",[20] and "pay such fees as are prescribed ... together with the annual specific ownership tax on the ... trailer coach, or mobile home",[21] except that "no owner shall be required to pay the annual specific ownership tax upon any ... trailer coach or mobile home for any registration year during all of which said ... trailer coach or mobile home is not to be operated or driven upon the public highways of the state" if the owner applies for such exemption and files with the county clerk and recorder "his affidavit setting forth the facts entitling him to such relief."[22]

Typically, there is no effective enforcement of the payment of specific ownership tax on a mobile home unless it appears on a public highway without license plates. This fact has resulted in large numbers of mobile homes which are not using the highways not paying the specific ownership tax voluntarily. Yet, in strict accordance with the law, such mobile homes are not exempt from specific ownership tax and therefore, subject to property tax unless the owners have filed affidavits to the effect that they do not intend to operate such mobile homes upon the public highways.

This results in a situation where the owner of a mobile home may pay either specific ownership tax or personal property tax, and if he does not draw the mobile home on the public highways may escape payment of either form of tax. County assessors, county clerks, and county treasurers in many counties have attempted to solve this problem by co-operative action, forcing owners of mobile homes to either pay specific ownership tax, or submit to personal property tax assessment and immediate payment of this form of tax. This has worked quite effectively in some instances, but it is a very difficult procedure. Really, there should be no such option to pay one of two types of tax, and since mobile homes are subject to registration for use of the highways, they should be required to pay specific ownership tax, exclusively.

Administration of Realty Recording Act

With the adoption of the Realty Recording Act in 1957, the administration of this act and the conduct of the sales ratio study upon which it is based, have become closely related to the administrative procedures of

---

20. C.R.S. 1953, Sec. 13-5-1 (1).
21. C.R.S. 1953, Sec. 13-5-3 (2).
22. C.R.S. 1953, Sec. 13-5-8.

Another problem encountered was that of obtaining information which was needed concerning the assessed valuations of each of the counties. Such information was obtained from all counties, but a better way of obtaining it should be found.

General Statutory Revision

The statutes relating to the assessment of property which are contained principally in Articles 3,4,5,6,7,8 and 12 of Chapter 137, Colorado Revised Statutes, 1953, are difficult to use. The arrangement of sections follows no logical order. Sections relating to the levy and collection of taxes which rightly belong in later articles are intermingled with the sections relating to assessment. Some sections are obsolete as the result of the enactment of other legislation, but have not been specifically repealed. Many sections are so ambiguous as to be scarcely capable of being interpreted. Some sections are in conflict with others. Most of them could be clarified considerably.

Findings and Conclusions

1) Listing Real Property for Assessment. All taxable real property should be listed and assessed to its owner of record on the assessment date in each year.

2) Partially Owned or Secured Real Property. Real property should be listed and assessed as a unit at the full value to the fee owner of record, without regard for notes, mortgages, trust deeds, deeds of trust, contracts or conveyances to secure a loan or debt, or other partial interests in public property, equities in state and school lands purchased under contract taken from the state, and coal, mineral, or oil and gas rights separately owned, may be listed and assessed separately.

3) Official Assessment Date. The first day of January in each year should be designated as the official assessment date, and all taxable property should be listed and assessed in the county where it is located on that date, except as otherwise provided for by law.

4) Livestock Sold During January. Any livestock which is sold for feeding or slaughter prior to the first day of February in any year should not be listed and assessed for such year in the name of the seller.

5) Division of Livestock Assessment Among Counties. Division of assessments on livestock which is herded or grazed in more than one county during the taxable year should be based upon a division of numbers of livestock, rather than of assessed valuation, and computation of such division should be based upon the nearest half month during which the livestock is herded or grazed in each county. When livestock is moved into any county from another county in the state after the assessment date, for which the assessor has received no agreement for division of livestock assessment, such assessor should be authorized to make a new assessment and division thereof, which shall supercede any previous assessment and division thereof previously made.

6) Livestock Fattened on Agricultural Products. All livestock which is being fattened on agricultural products by feeding in any county in the state should be assessed within the county where fed at such proportion of their full valuation as the time they are within the county for the current year bears to the full year, or those who are in the business of feeding livestock should be assessed as merchants upon the basis of the average investment in livestock during the preceding year.

7) Property Brought Into the State After the Assessment Date. Personal property brought into the state after the assessment date in any year should be listed and assessed in the county where it is located for that proportion of its full assessed valuation that the number of months or major fraction thereof remaining in the taxable year shall bear to a full year; if any such property shall not remain in this state until the next succeeding assessment date, it should be assessed for a proportion of its full assessed valuation that the number of months or major fractions thereof in this state bears to a full year; but no such assessment should be made for less than one-fourth of the assessed valuation for a full year, except as otherwise provided for by law.

8) Average of Merchandise or Manufactures. The measure of the value of merchandise and manufactures should be the average amount of money and credit invested in merchandise or in manufactures during the year preceding the assessment date.

9) Filing Schedule of Personal Property. Prior to the first day of May in each year each person who owns, or has in his possession or under his control, any taxable personal property, should be required to file a tax schedule listing such personal property with the assessor of the county wherein such property was located on the assessment date of the then current year, and furnish such information or records for examination as may be required by the assessor to make a proper and correct assessment.

10) Notice to Taxpayer Regarding Filing of Schedule. On or before the first day of April, the assessor should be required to notify all persons known to him to own, have in their possession or under their control, taxable personal property, who have not previously filed with him a schedule of such personal property, that they shall file such schedule before the first day of May next following, subject to the penalties for failure to do so provided for by law.

11) Penalty for Failure to File Schedule. If, prior to the first day of May, any person known by the assessor to own, or have in his possession or under his control, any taxable personal property, who shall have failed to file a schedule listing such property for assessment, or shall have refused to furnish such information or records for examination as required by the assessor, or shall have filed a schedule from which any taxable personal property known to the assessor was omitted, the assessor should be authorized to proceed to assess such property based upon the best information obtainable by him, and to assess upon such person a penalty in the amount of five dollars for each one thousand dollars of assessed valuation or part thereof. Such penalty should be certified to the county treasurer for collection with the taxes levied upon the assessed valuation of the property of such person.

12) Form of Return--Merchandise and Manufactures. Prior to the first day of May in each year, any person who owns, or has in his possession or under his control, any merchandise or manufactures should be required to render to the assessor of the county in which such merchandise or manufactures are situated on the assessment date, a statement of the amount of money and credits invested in such personal property on the last day of each and every month of the twelve months ending with the last day of December of the year preceding. Such statement should be based upon records of actual physical inventories taken, upon the month-end balances of perpetual inventory accounts, or upon a calculation of month-end inventories with use of monthly purchases and sales records.

13) Form of Return--Merchandise and Manufactures in More Than One County. Any person who owns, or has in his possession or under his control, merchandise and manufactures which are situated on the assessment date in more than one county, should be required to render a consolidated statement to the assessor in each county wherein such property is situated and to the Colorado tax commission, of the amount of money and credits invested in such personal property in each of the counties at the end of each month.

14) Form of Return--Personal Property Other Than Livestock, Merchandise or Manufactures. Prior to the first day of May in each year, any person who owns, or has in his possession or under his control, any taxable personal property, excepting livestock, merchandise or manufactures, should be required to render to the assessor of the county in which such property is situated on the assessment date, a statement listing such personal property, giving the original cost of each item when new, and the date purchased new or the approximate age thereof in years; provided that items of such personal property whose original cost was less than $500 need not be listed individually as items, but may be included in groups of such items of equal age.

15) Notice of Assessment. Prior to the first day of July in each year, the assessor of each county should be required to deliver in person or by mail a notice of assessment to each person who is the owner of taxable property, real or personal, which has been listed and assessed for the then current year; such notice of assessment may be a carbon copy of the tax schedule, but should include a description of the property assessed, and the amount of the assessed valuation for the current year; such notice should also include notice of the dates when the assessor will sit to hear complaints and an explanation of the rights of taxpayers to object to erroneous or excessive assessments.

16) Taxpayers Remedy to Correct Error. It should be provided that any person who is the owner of taxable property which has been assessed for a valuation that he believes is excessive, or which he believes is erroneously or illegally assessed, having received notice of such assessment, may file an objection with the county assessor between the first day of July and the third Monday of July in the year of the assessment, and request a review of such assessment; that when any such person is denied a review by the county

assessor, or is denied an adjustment of assessed valuation or correction of the assessment claimed to be erroneous, in writing, he may appeal, successively, to the county board of equalization, the Colorado tax commission, and thereafter, to district court in the county wherein the property is situated; that no person shall have a right of such appeal to the county board of equalization or any higher authority if he has not first filed his objection with the county assessor during the period provided for by law, unless he has not received proper notice of assessment, in which case he may be permitted to file objection within a reasonable length of time after receiving notice of assessment.

17) Machine Records of Assessment Information. It would be desirable to have detailed information concerning the assessed valuation of property in all counties recorded by a central machine records unit, from which any statistical information relating to assessed valuations which might be required by the tax commission, the county assessors, the General Assembly, or any other person or agency having a legitimate need for such statistics, might be easily and readily compiled.

18) Newly Organized Taxing Districts. When a new governmental district or jurisdiction of any kind whatsoever is formed, the county assessor should be required to certify to the governing body of such district the total valuation of taxable property located within the district, and to extend on the tax list the taxes levied by such district, provided that no such newly organized district should be permitted by law to levy a tax for the year in which organized unless it shall have been duly organized and shall have notified the county assessor of its intention to levy a tax prior to the first day of May in such year.

19) Taxation of Mobile Homes. It should be provided by law that mobile homes are exempt from property taxation in accordance with the provisions of Article X, Section 6, of the Constitution, and that all mobile homes shall be subject to the payment of specific ownership tax whether they use the public highways or not.

20) Realty Recording Act. Real estate conveyance certificates should be required to be filed only with deeds conveying fee title to any real estate, and agreements of purchase and sale for the conveyance of fee title. Such certificates should contain the following information concerning each conveyance:

a) The names and mailing addresses of the seller and the purchaser;

b) Any relationship, by blood, marriage, business or other association, existing between the seller and the purchaser;

c) The date of the instrument, and if a deed represents the completion of a prior contractual agreement, the date of such agreement;

d) The nature of the instrument;

e) The full legal description of the real estate conveyed as the same appears on the instrument filed for recording;

f) The total consideration, in terms of dollars, paid and to be paid for the real estate so conveyed, and a detailed explanation of the nature of said total consideration, as the amount of cash paid, the principal amount of indebtedness assumed by mortgage, deed of trust, or conditional sale agreement, or the value of other property traded;

g) A listing and evaluation of any property or rights other than the described land and improvements thereon which is conveyed with said land and improvements and payment for which is included in the stated consideration, as personal property, growing crops, leases of other lands, grazing permits, and licenses, franchises, or other intangible rights or interests.

h) The purpose of the conveyance, as clearance of title, satisfaction of debt, gift, or conveyance of full title;

i) The use to which the purchaser proposes to put the real estate conveyed, as agricultural, industrial, commercial, or residential.

j) Such other information as the General Assembly may prescribe.

Such real estate conveyance certificates should be subscribed to under oath by or on behalf of both the purchaser or purchasers, and seller or sellers. In addition to the present requirements of the law with respect to payment of fee and marginal notation, no deed or agreement with which a conveyance certificate is required to be filed should be recorded unless and until said certificate is filed in correct form.

21) General Statutory Revision. A general revision of the existing statutes relating to the assessment of property should be accomplished to repeal obsolete sections, reconcile conflicting sections, clarify ambiguous sections, accomplish a logical arrangement of sections according to subject matter, and incorporate such new provisions of law as may be enacted.

22) Such legislation as is needed to implement the foregoing conclusions should be enacted.

XII

ADMINISTRATIVE ORGANIZATION

Equalization of assessments among properties, among classes of property and among counties does not exist in Colorado. The discussions in preceding chapters have pointed out the many gaps, confusions and contradictions in the current statutes relating to assesment methods and procedures. The General Assembly has constitutional authority to prescribe methods and procedures that will secure equalized assessments. Numerous suggestions have been made in the preceding chapters for improving the laws relating to assessment of proper

However, the mere prescribing of methods of assessments by the General Assembly, whether in broad outline or in great detail, will not bring about equalization. Prescribing methods of assessment by law (designed to produce equalized assessments) will not, alone, guarantee equalized assessments. Prescribing methods of assessment by administrative directive (designed to produce equalized assessments) will not, alone, guarantee equalized assessments. Prescribing improved administrative procedures will not, alone, guarantee equalized assessments.

All of these, together, will not guarantee equalized assessments. The best plan that can be conceived by man is of no avail if it is not executed as conceived.

Such methods of assessment and administrative procedures as may be prescribed by law or by administrative directive must be uniformly, efficiently and equitably applied by assessing officials who are qualified to make such application and whose offices are adequately staffed and equipped for such purpose. The uniform use of such methods and procedures must be effectively enforced.

The proper application of prescribed methods and procedures is dependent upon an aggressive administrative organization to which is delegated authority to apply such methods and procedures in the assessment of property and in the equalization of such assessments. Such an organization must have a structure designed to accomplish efficiently its intended purpose. It must have the capacity to perform its assigned task. It must be composed of personnel capable of functioning properly. It must have clear and adequate authority to accomplish its purpose. And it must not be hampered by laws which, in themselves, are obstacles to the accomplishment of the desired goal.

Presently, the administrative organization to which has been delegated the performance of the administration of assessment and equalization includes:

1) The General Assembly, which, within constitutional limitations, has the responsibility of prescribing by law methods of assessment designed to produce equalized assessments, appropriating funds for administration at the state level, and providing for administrative organizations and procedures.

2) The State Board of Equalization, which has final responsibility for the equalization of assessments.

3) The Colorado Tax Commission, which, within constitutional and statutory limitations, has the responsibility of making original assessments of public utility properties, formulating assessment policies, supervising the assessment of property other than public utility property, and enforcing all laws relating to assessment and equalization.

4) The county board of equalization in each county which is responsible for the equalization of assessments within each county.

5) The board of county commissioners in each county, which, in addition to its ex officio responsibility as the county board of equalization, acts upon petitions for abatement or refund of taxes, controls the budgets of the county assessor's office, and appoints the county assessor in case of vacancy.

6) The county treasurer, in each county, who is empowered to make assessments omitted by the assessor.

7) The county assessor, in each county, who is responsible for the original assessment of all property except public utilities.

In the following sections, the problems relating to each of these parts of the administrative organization will be considered, starting with the county assessor. Although this officer was last named in the above list, his function is basic to the operation of the entire organization. Although the process of assessment must be planned and supervised from above, the successful performance of the assessment organization as a whole is dependent on proper performance by the local assessor in assessing each individual property.

The County Assessor

At the base of the administrative structure for assessing property is the office of the county assessor. In this office rests the responsibility for making original assessments on all property except that owned by public utility corporations.

Selection and Qualifications of County Assessor The principal requirement of an effective assessing organization is that the county assessors, having responsibility for original assessments, be qualified to perform that function. The function of assessing property is not an easy one, and not one that just anyone can perform or supervise. It requires the determination and evaluation of many factors in determining the valuation of a wide variety of property. In addition to appraising property, an assessor must operate an office which handles a mass of administrative details relating to the maintenance of property records; the calculation of valuations; the annual compilation of individual property valuations into total valuations for each governmental unit which levies a property tax and into total valuations for each class of property; the calculation of all property taxes levied by all units of government; and the consolidation of these levies into a dollar amount for each property.

The nature of the assessor's duties are such that, in a small county, where a specialized staff cannot be provided, the assessor must have knowledge of or skill in: the laws relating to assessment; accounting principles; appraisal theories and techniques; land descriptions and titles; map reading and construction; statistical methods; general office procedures; the use of office equipment; public relations; a good general knowledge of his county, its geography, topography, economy, and the values of types of property present therein; and the political acumen to remain in office.

In a larger county, less particular knowledge and skill may be needed by the assessor himself, but a greater executive ability to direct the performance of duties by specialized assistants is needed. He must be capable of selecting employees who are qualified to perform the duties, organizing them into an efficient operating unit, instructing them and supervising their work, and judging the quality of their work. This requires a high degree of executive ability and sufficient knowledge of the duties to be performed to enable him to act in an executive capacity.

The state constitution contains the following provisions relating to the selection of county assessors:[1]

1) A county assessor shall be elected in each county at the general election in 1954, and each four years thereafter.

2) The assessor shall serve for a term of four years beginning on the second Tuesday in January following his election.

3) No person shall be eligible for election as county assessor:

a) unless he shall be a qualified elector, that is, over twenty-one years of age, a citizen of the United States, and a resident of the state for at least twelve months prior to his election;

b) unless he shall have resided in the county one year preceding his election;

c) if he has been "convicted of embezzlement of public moneys, bribery, perjury, solicitation of bribery, or subornation of perjury";

d) if he has participated in the fighting of a duel.

4) No person shall hold such office without devoting his personal attention to its duties.

---

1. State Constitution, Art. XII, XIV, XX

5) Unless removed according to law, he shall exercise the duties of such office until his successor is duly qualified.

6) The county assessor "shall be subject to removal for misconduct or malfeasance in office in such manner as may be provided by law".

7) In case of vacancy in the office of county assessor, the board of county commissioners shall fill the same by appointment, and the person appointed shall hold the office until the next general election, or until the vacancy is filled by election according to law.

8) The above provisions do not apply to the city and county of Denver. "The officers of the city and county of Denver shall be such as by appointment or election may be provided for by the charter; and the jurisdiction, term of office, duties and qualifications of all such officers shall be such as in the charter may be provided; but the charter shall designate the officers who shall, respectively, perform the acts and duties required of the county officers to be done by the constitution or by the general law, as far as applicable."

The General Assembly has never added any qualifications to those contained in the constitution.[2] Therefore, anyone can become a county assessor, if he meets the constitutional requirements, gets his name on the ballot, and receives a plurality of the votes cast at a general election. There is no requirement that a candidate for election demonstrate his ability to perform the duties of the office. There is no safe-guard against the election of a person who is totally incapable of performing the duties.

Incumbent Assessors The present county assessors range in age from twenty-five to seventy-six, with an average age of fifty-two years. When first becoming assessors, their average age was forty-five. Sixty-one are male and two are female.

They have been in office, including 1958, an average of 7.65 years. Five have been in office less than four years, nineteen for four years, fourteen for six years, eight for from seven to eight years, four for ten years, and thirteen for from eleven to twenty-eight years.

The education of the present assessors averages 12.4 years. Eight have had less than a high school education, but none less than eight years. Thirty have a high school diploma only. Three have had short business courses. Eight have completed from one to two years of college. Seven possess college degrees.

---

2. The statutes do require the assessor to take an oath of office and to file two different official bonds before taking office. - C. R. S. 1953, Sec. 35-8-1 and 137-3-1.

Before election to office, they had a variety of occupational experience. Twenty-one were farmers or ranchers. Twelve were businessmen. Three were salesmen. One was a bank teller. Four were office clerks. Two were sales clerks. Four were construction workers. One was an attorney. One was a public accountant. One was a teacher. Three were miners. One was a laborer. One came from the military service. Three were government workers. One had no previous occupational experience. Fifteen of them had previous experience, as well, in the assessors office in subordinate positions, an average of five and one-half years, ranging from one to ten years.

They are, in short, a good cross-section of typical solid citizens of Colorado. Since the present salary scale, and the difficulty of the duties, do not make the office of county assessor an attractive one, many who are currently serving have run for election to this office because of a desire to perform an essential public service. Most of them could probably earn more income with less effort and responsibility in some other line of endeavor.

With few exceptions, the current assessors had no particular preparation for assuming the office of county assessor, either by education or by experience. Many occupations, perhaps all, provide experience which is to some extent applicable to the duties of county assessor. However, there is no way in which a person can acquire specific training and experience in the function of assessing except by working as an assessor, or as a professional appraiser. In larger counties, assessors may be selected from among employees who have had experience in the technical phases of assessing. However, this is not a frequent occurrence. Those who have become proficient in the field of professional appraisal are not attracted to the office of county assessor. Salaries paid to county assessors are not comparable to the economic opportunities in the professional field.

Another objection to election as a method of selecting county assessors is that, as an elected official, the county assessor is subject to continuous political pressures. Attempts may be made to influence him to grant special favors in the way of reduced assessed valuations. Such influence may some-approach the level of coercion. The fear that people whose valuations have been raised will vote against him at the next election may deter an assessor from increasing valuations when he knows that they should be increased. If he does increase valuations extensively, or refuses to decrease them under pressure, he may be defeated at the next election. And, of course, there is always the possibility that the assessor may curry the favor of the electorate of his own accord.

Appointment of Assessor Is there some other manner of selecting county assessors which would help to assure that qualified persons would be selected for the office, and which would eliminate the undesirable aspects of political influence and pressure? There are at least two possibilities: 1) appoint, rather than elect, county assessors; or 2) require a candidate for election as county assessor to meet minimum qualifications for the office.

Appointment could take one of several forms: 1) appointment by a state

agency; 2) appointment by the board of county commissioners; or 3) appointment by a board created for the purpose, a modification of what is known as the "Iowa plan". The desirability of appointment as a method of selection varies according to the body making the appointment. The body selected to make the appointment should be judged upon the basis of how well appointment by it would maintain the proper balance between local autonomy and central authority, and how effective it would be in selecting competent assessors and in removing the assessors from political influence.

If state-wide equalization of assessed valuations is to be achieved, it is essential that an administrative agency of the state have authority to enforce laws relating to the assessment of property, and authority to formulate and carry out policy within the framework of the law. County assessors must be required to comply with such laws and policies. They may question them, or course. In fact, they should be encouraged to question any law or policy which they feel should be changed. But until a change is made, existing laws and policies should be complied with strictly.

On the other hand, there are advantages to be found in local control of the assessment process, as distinct from law or policy--the performance of the function of assessing individual property by local people who are familiar with local property, are acquainted with local people, yet not subservient to them, and cognizant of local economic conditions which affect the value of property.

The appointment of assessors by a state agency could result in the creation of a centralized bureaucracy which might act arbitrarily without regard for justice to the individual taxpayer. For instance, without local participation in the assessment process, mere mechanical application of appraisal methods could result in buildings being appraised and assessed strictly according to cost of reproduction without regard for varying levels of market value reflecting local circumstance.

Appointment of assessors by a state agency would undoubtedly strengthen the authority of that agency over assessors so appointed. It might also remove the assessor from the influence of local political considerations. However, large administrative organizations have their own internal politics. A state-appointed assessor might be inclined to curry favor from his superiors and seek to gain advancement by increasing valuations without regard for justice. The present tendency toward competitive under-valuation might be replaced by the opposite extreme of competitive over-valuation.

Appointment of assessors by the boards of county commissioners would retain local control of the selection of the county assessor. However, it would tend to make the county assessor subject to a body which is itself subject to political pressure, and which is frequently not representative of all property interests in the county. The board of county commissioners is representative of geographical parts of the county, each coming from a separate district, though elected by all of the voters of the county. However, it is possible that all three commissioners in a county may be representative of only one type of property interest. Furthermore, the board

is representative of only one of the many units of government which are concerned with equitable property tax assessments.

The county assessor performs a function which, while it has been delegated to the county, is for the benefit of, not only the county government itself, but also the state at large, each school district, each town and city, and each special district in the county. In terms of taxes levied upon the assessed valuation of a county, the other units of government combined, have a much greater stake in the property tax than the county government does. School districts are greater beneficiaries of the property tax than the county government, and with reference to urban property, municipal corporations are greater beneficiaries than the counties.

It would seem that if local control of the selection of county assessors, other than by the electorate as a whole, is to be retained, all units of government which depend on the property tax as a source of revenue should participate in the selection of the assessor. The "Iowa plan" referred to above recognizes this principle. As it operates in the State of Iowa, a county conference board is created. This board is composed of the county board of supervisors, the members of the county board of education, and the mayors of all incorporated cities and towns in the county. A county assessor is selected by this county conference board, each of the three groups voting as a unit, with the vote of at least two of the three groups required for the selection.

In Colorado, such a plan would have to be modified to fit the needs of this state. The county board could have the following composition: the county commissioners; the president of each board of education in the county; the mayor of each incorporated town and city; and, perhaps, the chairman of the governing body of each special district levying a tax in the county. Each of these four groups could be required to vote as a unit, the votes of at least three of the four groups being required for the selection of an assessor.

Such a plan would have the advantage of retaining local participation in the selection of the county assessor. It would broaden local participation to include the interests of all units of government which make use of the assessed valuations of the county as a tax base, and would be more likely to represent all economic interests in the county. It would place the responsibility for selection upon a group of people, who, in their official capacities, would be concerned with the selection of a qualified person to perform the duties of county assessor. One objection that is raised to such a plan is that it would place the responsibility for the selection of the assessor in the hands of tax spenders, rather than taxpayers.

Examination of Candidates The selection of a qualified person, whether by election or by appointment, could be further assured by requirement that candidates for election or appointment be examined and certified as qualified, another adaptation of the "Iowa plan". It could be provided that whenever there was need for selection of an assessor in a county, the tax commission would conduct an examination and certify those who performed

satisfactorily on the examination as eligible for selection as county assessor. The examination should probably be held in the county seat, and could be administered by the county superintendent of schools, as are other such examinations. They should be open to all who are now eligible to be candidates for the office. The date and place of examination should be adequately publicized. All those wishing to take the examination should have opportunity to prepare for it, and be provided with such study material as would be needed for such preparation.

The examination should cover the laws relating to assessment of property, the duties of the assessor's office, the principles and techniques of appraisal, elementary principles of accounting, and areas of general information which are applicable to assessing. An examination, in itself, does not guarantee the selection of a good assessor. However, it can serve the purpose of eliminating those applicants who, through their inability to pass a reasonable examination for which they have been given adequate opportunity to prepare, fail to demonstrate the ability to learn the duties of the office, given adequate instruction and supervision.

Term of Office In connection with appointment as a method of selection, another problem is that of the term of office. Some possibilities are: 1) a stated term of years, such as four years, with open competition for appointment at the end of each term; 2) a stated term of years, with a vote of confidence in the incumbent appointee by the appointing authority at the end of each term, open competition for appointment following a vote of no confidence; or 3) an indefinite term, with the appointee subject to removal at any time by the appointing authority for unsatisfactory performance of duties.

A stated term, followed by open competition for appointment, has the advantage that it might encourage a higher level of performance on the part of the assessor if he knew that he would have to compete for the office periodically. On the other hand, such policy might result in too frequent loss of the accumulated experience of an incumbent assessor. A stated term, with the privilege of reappointment if satisfactory to the appointing authority, would tend to give the assessor somewhat more security of tenure. An indefinite term would give the assessor the greatest security of tenure, provided there were adequate safe-guards against arbitrary removal, yet the threat of removal would likely serve as a spur to a high level of performance.

The abandonment of the election of county assessors, and the substitution of some form of appointment, would require the adoption of a constitutional amendment. Whether the people of the state would accept such a proposal may be open to question. A definite proposal to amend the constitution to provide for a specific method of appointing assessors has never been submitted to the electorate as a separate issue. The people have, however, repeatedly rejected proposals of a general nature which would have permitted the appointment of county officers in general. The most recent of these was the proposal known as Constitutional Amendment No. 3 which appeared on the ballot in the 1958 general election. This proposal would have permitted the adoption of alternate forms of county government, some of which could have resulted in

the appointment of county assessors. However, this proposal, like others which have preceded it, was not directed specifically to the solution of the problem under consideration.

The requirement for examination and certification could be enacted as a statute, while retaining election, without a constitutional amendment. This could be done by providing that no one should be elected as county assessor who had not been examined and certified as eligible for election to the office. There is precedent for such a provision in the law, in the case of the county superintendent of schools, who must hold a valid Colorado teaching certificate covering the term of his office, and who must have taught in the Colorado public schools for at least eight months,[3] before he is eligible for the office.

Salaries of County Assessors Salaries paid to county assessors are important in order that capable people may be attracted to and retained in office. As provided in the Constitution, the General Assembly has classified the counties of the state according to population and has set a scale of salaries for assessors and other county officers based upon this classification. At its last session, the General Assembly adopted a new classification and salary scale, which is shown in table XXIII. These salaries will be effective beginning with the next term of office, the second Tuesday in January, 1959. Also shown, for purposes of comparison, are the present salaries, the populations upon which the new classification is based, and the 1958 assessed valuations of the counties. Two assessed valuations are shown for each county. The first is the total valuation of all property assesed by the county assessor, excluding public utilities. The second is the total valuation of the county, including public utilities. The first is a better measure of the responsibility of the county assessor. The second is a better measure of the ability of the county to pay a given salary.

An analysis of these salary scales with reference to the amount of assessed valuation shows that salaries presently paid to county assessors are not commensurate with the responsibility of the office in any of the classifications, and are insufficient to attract to these positions people who are qualified to undertake the responsibility, for consideration of salary alone. The increased salary schedule effective in 1959 is still inadequate.

While the top salary of $6,000, applying to the eight counties[4] with the largest population and assessed valuation, cannot be said to be a starvation wage, it is certainly a penurious salary in view of the responsibility of the office and the degree of ability which should be required

---

3. C.R.S. 1953, Sec. 35-10-1

4. Denver is excluded from this discussion because the General Assembly has no control over the salaries paid in this county.

TABLE XXIII

SALARIES OF COUNTY ASSESSORS

unty	Salary Effective January 1959	Present Salary	1950 Population	1958 Assessed Valuation of Locally-Assessed Property	Total 1958 Assessed Valuation, Including Public Utilities
ass I					
Denver	(Governed by City Charter)			$989,648,520	$1,070,893,790
ass IIA					
Pueblo	$6,000	$5,400	90,118	139,479,350	160,261,030
El Paso			74,523	164,904,490	178,943,350
Weld			67,504	122,733,050	144,169,400
Jefferson			55,687	160,032,200	171,886,190
Arapahoe			52,125	140,464,240	153,523,910
Boulder		(4,800)*	48,296	101,953,810	119,168,960
Adams		(4,800)*	40,234	128,816,830	148,199,600
Larimer		(4,800)*	43,554	83,225,220	90,784,720
Class IIB					
Mesa	5,400	4,800	38,974	78,740,350	84,602,490
Las Animas			25,905	21,971,300	30,897,670
Otero			25,275	31,472,635	37,584,155
Class IIIA					
Fremont	5,100	4,500	18,366	21,370,790	27,879,510
Morgan			18,074	58,015,570	63,572,010
Delta			17,365	17,066,050	20,450,000
Logan			17,187	52,896,240	63,019,550
Montrose			15,220	25,922,540	29,148,550
La Plata			14,880	30,154,405	39,217,325
Prowers			14,836	21,888,240	26,735,760
Rio Grande			12,832	16,422,561	19,037,631
Garfield			11,625	21,146,270	29,245,010
Class IIIB					
Yuma	4,700	4,100	10,827	21,091,500	23,655,980
Huerfano			10,549	7,626,120	11,200,970
Class IIIC					
Alamosa	4,700	4,100	10,531	11,551,422	15,659,932
Conejos			10,171	7,994,890	10,307,480
Montezuma			9,991	13,756,215	15,740,995
Routt			8,940	17,821,870	22,064,210
Bent			8,775	10,951,457	15,776,717
Kit Carson			8,600	18,101,895	19,435,075
Baca			7,964	14,639,082	20,123,882
Washington			7,520	40,218,910	42,722,480

TABLE XXIII - (Cont'd.)

County	Salary Effective January 1959	Present Salary	1950 Population	1958 Assessed Valuation of Locally-Assessed Property	Total 1958 Assessed Valuation, Including Public Utilities
Class IVA					
Chaffee	$4,400	$3,800	7,168	$ 9,622,860	$ 13,925,960
Lake			6,150	29,167,935	31,675,255
Costilla			6,067	4,091,800	5,675,640
Moffat			5,946	17,098,375	18,705,045
Lincoln			5,909	14,525,465	18,714,405
Gunnison			5,716	10,605,185	11,431,355
Saguache			5,664	9,334,710	10,009,160
Crowley			5,222	5,975,050	7,453,910
Sedgwick			5,095	12,087,140	13,720,560
Phillips			4,924	14,882,250	16,453,550
Rio Blanco			4,719	75,511,025	80,369,045
Eagle			4,488	7,363,401	12,672,711
Elbert			4,477	10,747,228	14,283,988
Grand		($3,400)*	3,963	8,495,815	11,400,515
Douglas		($3,400)*	3,507	8,997,800	13,464,810
Class IVB					
Cheyenne	$4,000	$3,400	3,453	10,707,055	15,381,495
Clear Creek			3,289	4,912,200	5,895,610
Archuleta			3,030	4,399,860	5,836,670
Kiowa			3,003	9,616,190	13,331,830
Park		($3,000)*	1,870	7,510,745	7,933,975
Teller			2,754	5,165,350	5,933,280
San Miguel			2,693	6,487,330	7,979,530
Class V					
Ouray	3,600	3,000	2,103	3,553,029	4,413,499
Jackson			1,976	7,161,380	9,151,750
Dolores			1,966	4,266,520	5,027,300
Pitkin			1,646	7,086,670	8,109,030
Custer			1,573	3,052,231	3,164,481
Class VIA					
San Juan	3,360	2,800	1,471	1,667,714	2,499,104
Summit			1,135	4,440,935	5,344,905
Gilpin			850	2,044,345	2,828,095
Class VIB					
Mineral	2,760	2,300	698	1,090,615	1,790,755
Hinsdale			263	1,154,340	1,184,870

* Counties reclassified in 1957.

of the officer having such responsibility. In the lower classifications, the salary is not sufficient to provide a living wage in this day of high living costs. An assessor in one of these counties, in order to remain in office, must of necessity have a supplementary source of income. If this source is other than a pension or income from investments, the assessor must of necessity take time off from his official duties to earn it in some manner. This is exactly what happens in at least twenty of the sixty-three counties. The devotion of anything but full time to the duties of the office detracts from the ability of the county assessor to perform properly those duties.

An analysis of Table XXIII also shows a disparity between the relative populations of the counties and the importance of the office of county assessor, as judged by the total assessed valuation, indicating that population is not the best basis of classification. For instance, Morgan County, with an assessed valuation of $63,572,010, is classified lower than Las Animas County, with an assessed valuation of $30, 897,670.

However, total assessed valuation as a basis of classification would probably not be completely satisfactory, either. Comparative assessed valuations are not a true measure of the difference in work load and ability required in the county assessor's offices. There is so much difference between the degree of skill and the amount of work required to produce a given amount of assessed valuation for different classes of property that a true measure of the relative difficulty of the offices from county to county can be obtained only by an analysis of the valuations by class of property, properly weighted according to degree of skill required in assessing them. The number of separate classes of property under the jurisdiction of individual assessor's offices varies from a minimum of twenty-seven to a maximum of sixty-four.

Little can be done at present to alter the salary scale of county assessors. Under the provisions of the state Constitution[5] no assessor can receive an increase of salary during his term of office. Therefore, any increased scale of salaries which might be adopted by the Forty Second General Assembly could not become effective before January, 1963, except for any person appointed to fill a vacancy prior to that time.

The Constitution provides that salary scales of county officers, including assessors, shall be determined by the General Assembly according to classifications of counties based on population. Therefore, under present constitutional provisions, nothing can be done to adjust salaries to reflect the true comparison between different county assessor's offices according to volume and difficulty of work.

Proposed amendment No. 2, which was defeated at the 1958 general election, would have removed both of the obstacles referred to above. It would have permitted county assessors and other county officers to receive increases in salary during their terms of office, and would have authorized the General Assembly to consider factors other than population in classifying counties.

---

5. State Cons., Art. X, Sec. 30

Training Minimum qualifications might be prescribed for eligibility to become an assessor. Assessors might be either elected or appointed after examination and certification. Salaries might be increased to an adequate level to attract and hold persons of a high degree of ability. Yet, a county assessor would still have a tremendous amount to learn about his duties after taking office.

With the new terms of office in 1959 there will be an especially great need for training of assessors because of the inexperience of many in office. There will be sixteen newly-elected assessors beginning their first terms of office. Of these, only two have had any experience in an assessor's office--one as chief deputy for one and one-half years, and one as county assessor previously for about three years. There will be, in addition, seven assessors who have served as such for less than four years, ranging from three months to three and one-half years. In addition, there will be eleven assessors beginning their second term of office, having had no more than four years of experience in the office. The remaining twenty-nine assessors have had more than four year's experience, ranging from six to twenty-eight years.

How are these many inexperienced assessors to learn the duties of their offices, the principles and practices of appraising, the administrative routines of their offices, and the provisions of the law relating to their office? Some of them may be given some instruction by the retiring assessor. However, the nine assessors who were defeated at the polls are not likely to devote much, if any time, to instructing their victorious opponents, and the victorious candidates are not likely to seek such instruction.

Some of them may receive valuable instruction from experienced deputies and assistants who remain in the office, and who will also continue to perform their usual duties while the assessor is learning. However, seven of the new assessors will enter offices where all assessing has been done by the assessor himself. The only assistance available will be from employees whose duties have been principally clerical. Five more of them are entering offices where the major and most difficult part of assessing was done personally by the assessor, and those assistants remaining in the office do not have full knowledge of the duties of the assessor. Two of them are entering large offices having large and highly specialized staffs. However, the benefit of experienced help can be realized only if the help is retained. Sometimes a new assessor replaces some or all of the former employees, or they refuse to remain.

The new assessors will receive a certain amount of individual instruction from consultant assessors of the tax commission. Each of the consultant assessors will go from county to county in his own district spending some time in the instruction of new assessors. The amount of time spent is insufficient, however. In some instances, weeks and months may pass before a consultant is able to spend more than a day or two with a particular assessor.

They will learn something of their duties at the annual conference of the Colorado Assessor's Association in January, if they attend. These meetings serve a valuable function. An assessor, new or old, can learn much from the talks, discussions and demonstrations that make up the program of the conference. He can learn even more from individual discussion with experienced assessors. If he has any questions to ask he can probably get answers, sometimes a variety of answers, frequently the wrong answers. However, there is no formal course of instruction covering the basic information that assessors need to learn. The purpose of the conference is the consideration of the more important problems that are currently facing the assessors, and the talks and discussions may be of such a nature that a new assessor does not even benefit much from them because he has insufficient basic information to understand the problems under discussion.

They can learn much by reading and studying on their own. However, the statutes which they have in their possession require interpretation in the light of experience, and there is no manual available to them explaining what the law means as currently interpreted. There is no manual available to them which explains all of the duties of the county assessor. There is the real estate appraisal manual, but a new assessor can have much difficulty in understanding it if he is not given considerable instruction in its use.

They can learn by doing, and commit many grievous errors in the process.

In recognition of this urgent present need for assessor training, the executive committee of the Colorado Assessors' Association has planned to include in the program of the 1959 annual conference of the association, a half day of briefing of new assessors by experienced assessors in the basic information needed by them. This is a very commendable undertaking. However, much more than this is needed in the way of a training program for assessors. There is an urgent need for several things to remedy this lack of training.

Assistants Another factor influencing the quality of the work of an assessor's office is the staff of deputies and assistants--adequacy as to numbers, individual qualifications, and manner of organization for the work to be done. This problem of course, varies from county to county with the volume of work required.

The number of full-time employees in various county assessor's offices varies from none in five counties to one hundred twenty-six in the city and county of Denver. Twenty-one offices have only one full-time employee; twelve have two; four have three; five have four; and thirteen have from five to one hundred twenty-six, the largest other than Denver having twenty-one.

Because of the extreme variation among sixty-three counties of different sizes and having different problems, it would be too

difficult to attempt to present a detailed analysis of the personnel problem in this report. In general, most county assessors do not have sufficient assistance to perform the task assigned to them. In many counties, the assessors claim that they do not need or desire more assistance. However, an examination of their assessments and records will indicate that if they were to undertake to do a thoroughly good job of assessing the property in their counties, they would need more assistance.

The salaries paid to employees of the county assessors vary a great deal. In general, they do not represent fair compensation for the work performed and are inadequate to attract and hold competent people. This is not to say that none of the assessor's employees are competent. Many assessors have been fortunate in obtaining very capable people willing to work for the pay offered, people who have returned from retirement to active employment, or who have other income, and work with the assessor because they are attracted to the work, or who prefer this to other work available in the community. However, it is true that many assessors are unable to get people sufficiently well qualified, especially for the more technical duties.

One problem, in particular, confronts the assessors in the smaller counties. They may be able to get adequate clerical assistance. They may be able to get suitable people to do the general run of personal property assessing. But they are unable to employ people with the specialized skills required for some of the more difficult assessing. From time to time they may need the services of a competent accountant or a qualified real property appraiser. They may not be able to employ such a man because they cannot afford to employ him full-time, and do not need him full-time, but none is available for part-time work.

The need for such assistance is met to some extent by the tax commission. The consultant assessors provide general assistance in the counties to which they are assigned. In fact, a good deal of their time is spent in actually doing work for the assessors, appraising structures, constructing plat books, etc. However, the time they can spend in this manner is limited, and they are not specialists. The industrial appraisal engineer on the staff of the tax commission is sent on request of an assessor to appraise the buildings and equipment of large industrial establishments. He has performed a valuable service, but he has not been able to accomplish the appraisal of all properties for which his services have been requested and some do not request his services.

County Board of Equalization

The Constitution provides that there shall be in each county a county board of equalization, consisting of the board of county commissioners, whose duties shall be to "adjust, equalize, raise or lower the

valuation of real and personal property within their respective counties, subject to revision, change and amendment by the state board of equalization" and "to equalize to the end that all taxable property in the state shall be assessed at its full cash value and also perform such other duties as may be prescribed by law".[6]

The statutes provide that "the county commissioners of each county shall constitute a board of equalization for the adjustment and equalization of the assessment among the several taxpayers of their respective counties"; that, as such board of equalization, they shall meet at the county seat beginning on the third Monday in July and ending on or before the twenty-eighth day of July; that at least ten days' notice of the time and place of the first meeting shall be given by publication, or by posting written or printed notices; that, at the time of such meeting, the board shall receive from the assessor "the complete assessment of his county, together with a list of property returned to him" and "lists of all persons or corporations in his county who have returned insufficient lists of personal property, or have failed to return any list of property as required by law" and a report of "his action in each case"; hear petitions from taxpayers claiming that their property has been "unjustly or erroneously" assessed for the current year; "grant or refuse the prayer of the petitioner, in whole or in part, as may seem just and proper" and "correct any error or mistake in such assessment made by the assessor under the law whenever, in their judgement, justice and right may require it" taking into consideration "the value as fixed by the assessor upon other similar assessable property similarly situated"; make or direct changes in any other assessments "such as will adjust the assessments as made by the county assessor so as to equalize the same among the several taxpayers of the county"; and "supply any omissions in the assessment roll, which may come to their notice".[7]

The function of the county board of equalization, as provided by statute, is three-fold: 1) to hear and act upon complaints of individual taxpayers concerning the assessed valuations upon their property; 2) to order the assessor to supply omissions of assessments which come to its attention; and 3) to order changes of assessments so as to equalize assessments among the several taxpayers of the county. There is, in addition, the constitutional requirement that it shal equalize to the end that all taxable property be assessed at its full cash value.

How effective are the several boards of equalization in the performance of these functions? In order to find an answer to this question,

---

6. State Cons., Art. X, Sec. 16.

7. C.R.S. 1953, Sec. 137-3-38, 137-8-1 to 3.

the proceedings of boards of equalization in forty-four counties during the years 1953 through 1957 have been examined, and the subject has been discussed with all assessors and with many members of such boards.

Typically, a few petitions for adjustment of assessments are received at the time of the meetings of the board of equalization. Few taxpayers, even though they may not be satisfied with their assessments, avail themselves of the privilege of a hearing before the county board of equalization at the proper time. Most boards of equalization deny most of the petitions presented to them. In eighteen of the forty-four counties there were no appeals during the entire five-year period. In seven of the counties a total of twenty-one appeals were all denied. In nineteen of the counties, having three hundred eighty-eight appeals during the five years, one hundred fifty-one adjustments were made. Of these, one hundred eighty-six appeals and one hundred adjustments were in two counties. The total amount of adjustment, even in these two counties, was relatively small.

County boards of equalization usually do not make adjustments in the assessments of their counties except as a result of petitions of individual taxpayers for reductions of their assessments. Only two cases of such adjustments were encountered for the five-year period investigated. In one county the board ordered a ten per cent reduction of the assessments on farm lands in 1954. In 1957, in another county, at the insistance of the assessor, the board ordered the reduction of valuations on all lots in two city blocks after having reduced the valuations on part of the lots on petition from individual taxpayers. No case was encountered, or has been heard of, where a county board of equalization has <u>increased</u> assessed valuations.

Likewise, no case has been encountered where a county board of equalization, as such, ordered the county assessor to supply any omissions of assessments. However, many assessors have reported that the commissioners of their counties, as individuals, have been helpful in calling attention to personal property which might otherwise have been overlooked.

Usually, the complete assessment of the county and other information which the law requires the assessor to present to the board of equalization are not presented. Usually, the assessor has not completed his abstract of assessment for submission to the tax commission prior to the meeting of the board, although he does present it to the chairman for signature before sending it to the tax commission. The boards of equalization do not review the entire assessment of the county with reference to whether assessed valuations of particular properties, or particular classes of property, should be raised or lowered. They give no attention to the question of whether assessments are at full cash value, or are equalized within the county at any other level. Their activities are confined solely to the hearing of a few petitions of individual taxpayers for reduction of assessed valuations.

In general, it can be said that county boards of equalization, as now constituted, do not perform the function for which they were created. In some counties. there is no record that the board even met during the last five years. Many county commissioners with whom the problem was discussed do not realize that the board of equalization should do anything but hear petitions of individual taxpayers, and they do not feel that they as individuals are competent to exercise judgment in matters of property assessment. They feel that they should rely upon the county assessor to know better what is a correct assessment.

An ex-officio board of equalization has many weaknesses. Its members may not have any particular qualifications for judging matters of assessed valuation. They are not elected upon the basis of possessing such qualifications. Sitting as a board of equalization is only one of the many duties that they must perform, and they have little time to devote to this particular duty. Furthermore, they do not, as individuals, represent the various property interests present in the county, and they represent only one of the units of government which are interested in the property tax.

Again, the State of Iowa has shown the way to improved provisions for equalization and tax appeal at the county level. In that state, the county conference board, previously referred to, which selects the county assessor, also selects a county board of review. This board of review is charged with the duty of guiding the county assessor and acting as a board of review to raise or lower assessments. The board of review consists of three or five members as each conference board may choose. It must consist of at least one farmer, one registered real estate broker, and one person experienced in the building and construction field. As with the selection of the county assessor, each group of the conference board votes as a unit, and the agreement of at least two of the groups is necessary for selection. No two members of the board of review may be citizens of the same town or township, and not more than two members of the same profession may serve.

Board of County Commissioners

The board of county commissioners in each county, as such, and not as a county board of equalization, performs certain functions related to assessment administration. They include the appointment of the county assessor, in case of vacancy; the approval of the assessor's annual budget and the subsequent approval of all expenditures thereunder; and the approval of all petitions for abatement or refund of taxes.

Petitions for abatement or refund of taxes are different than petitions concerning erroneous or unjust assessments received and acted upon by the county board of equalization. However, the difference is principally with reference to time of petition and the manner in which it is handled. As a county board of equalization, the board acts to adjust the current assessment of property, prior to the submission of

such assessment to the tax commission and the state board of equalization, and prior to the certification of such assessment to the various taxing usrisdictions which levy a tax thereupon. In such cases, the action of the board with reference to individual assessments is final.

After its adjournment as board of equalization, the board of county commissioners cannot make adjustments in original assessments. However, at any time either before or after the payment of taxes, the taxes, or a part of them, may be abated or refunded by order of the board, subject to the approval of the tax commission. Such action may be taken when taxes are found to be erroneous or illegal, because of erroneous assessment, improper or irregular levying of the tax, or clerical errors. Hearings must be held on all petitions for abatement or refund of taxes, and the assessor must be afforded an opportunity to be present at such hearings.

Many petitions for abatement or refund are initiated by the county treasurer to relieve himself of liability for collection of taxes which were erroneously assessed and levied because they are double assessments or because they are assessed and levied against personal property not owned on the assessment date. Some petitions are initiated by the county assessor, in the name of the taxpayer, for the correction of errors in assessment or tax computation discovered by the county assessor. Many petitions are received from taxpayers wherein they are protesting the justice of the assessed valuations.

Strictly speaking, all taxpayer petitions based on objections to the assessed valuation should be presented to the board of equalization with reference to current assessments only, and should be heard by the county commissioners at no other time. However, with considerable justification, if it appears that the taxpayer had insufficient notification of the assessed valuation, or insufficient knowledge of his rights, or if the assessment was obviously erroneous or unjust, commissioners will hear such petitions and act upon them. As suggested in the chapter on administrative procedures, an improvement in notification procedures should result in a great decrease in the number of petitions for abatement and refund.

The control of the commissioners over the annual budget of the county assessor has an important influence on the ability of the county assessor to perform the duties of his office. Many county assessors are not provided with adequate budgets to enable them to perform the duties of their offices properly. Some assessors may not be allowed funds for the hiring of temporary deputies for the assessment of personal property. They must attempt to do all of such assessing themselves during a very short period of time. As a result they cannot do a thorough job. In some counties, which are sufficiently large to make effective and economical use of mechanical equipment for the listing of property, the county commissioners have steadfastly refused to authorize the purchase of such equipment. Two of the

largest counties in the state have no tabulating equipment for use in abstracting because of budget limitations. One assessor has had to purchase a calculator at his own expense in order to have the use of one. Most counties are understaffed. The pay scales for assessor's employees are excessively low in most counties.

With reference to the pay of employees an especially difficult problem exists. The assessor's office needs some employees with a higher degree of skill or technical knowledge than is needed in any other county office. Yet commissioners either refuse to recognize this fact, or recognizing it, claim that they connot pay any of the assessor's employees at a higher rate than the other county employees. As a result, in one of the largest counties in the state, the chief real estate appraiser is paid only $325.00 per month.

Why do these situations exist? In some cases, perhaps the county cannot afford a greater budget for the assessor without increasing its tax levy. In some cases, the assessor is reluctant to request a larger budget. In others, the commissioners refuse to recognize the need for a larger budget. It is difficult to determine any way in which this situation could be corrected by legislative action. There are at present statutory requirements that the commissioners shall pay all necessary expenses of the assessors office and all necessary field expenses, and that they shall hire deputy assessors when necessary.

Problems relating to the appointment of county assessors in case of vacancy have been discussed earlier, with reference to the office of county assessor.

The County Treasurer

The county treasurer in each county, although his primary function is the collection of taxes, has certain statutory duties, power and authority relating to the assessment of property. The law[8] provides that "If any taxable property shall be omitted in the assessment of any year or series of years, and not listed upon the assessment roll, when discovered it shall be assessed by the assessor for the time being and inserted on the assessment roll, or in case of the failure or neglect of the assessor the same shall be assessed by the treasurer, and by him inserted in the warrant with the arrears of taxes as provided for 'additional assessments'."

8. C.R.S. 1953, Sec. 137-3-21

"Omissions, errors or defects in any form in any assessment list or tax roll, when it can be ascertained therefrom what was intended, may be supplied or corrected by the assessor at any time before the return of the assessment roll to the treasurer, or by the treasurer at any time after the receipt of the roll."[9]

"When the treasurer of any county, after the tax list is committed to him, ascertains that any real estate, horses, mules, asses, cattle, sheep, goats, swine or other personal property then in his county, are omitted from the tax list, and has reason to believe that such personal property has not been taxed in any other county for that year, he shall forthwith proceed to list, value and assess said property in the same manner that the assessor or county clerk[10] might have done and shall enter such assessment in his tax book, following the levies made and delivered to him by the clerk. Such entries shall be designated as additional assessments. The taxes so levied and assessed by the treasurer shall be as valid for all purposes as if the assessment had been made by the assessor, anything in this chapter to the contrary notwithstanding."[11]

"It shall be the duty of the county treasurer to assess, at a fair value, the property of any person liable to pay taxes, whom the county assessor has failed to assess, and to place the same on the tax roll, and to collect taxes on the same in the manner provided by law. Such treasurer shall not be compelled to assess such property in person; and he is authorized to administer oaths to such persons, or any others, touching the value of property."[12]

The performance of the function of assessing property by anyone who is not an assessing officer, and particularly by an officer whose principal function is the collection of taxes, if exercised without consultation with the county assessor, cannot be expected to contribute to the goal of equalization of assessments. It does not seem desirable that the county treasurer have any authority to make any corrections in the tax list. However, that officer should have the duty and authority, when he discovers an apparent omission of taxable property from the tax list, or an apparent error in said tax list, to request that such omission be supplied or such error be corrected by the county assessor, and in case the county assessor refuses or neglects to supply such omission or correct such error, to report the same to both the board of county commissioners and the tax commission.

---

9. C.R.S., 1953, Sec. 137-3-48.

10. Reference to the county clerk indicates how obsolete this section is.

11. C.R.S., 1953, Sec. 137-9-19.

12. C.R.S. 1953, Sec. 35-7-17.

The Colorado Tax Commission

Statutory Provisions The agency of the state government which is charged with the administration of property tax assessment is the Colorado tax commission. This commission was created by law in 1911, when it was given all the statutory duties, power and authority of the state board of equalization except final authority in matters of equalization.[13]

The tax commission consists of three members, They are appointed by the governor pursuant to Article XII, Sec. 13, of the Constitution relating to civil service and hold office subject to civil service laws and regulations. The law does not provide which of the three commissioners shall be chairman of the commission. In practice, the three commissioners annually elect one of their number to be chairman for the ensuing year.

A majority of the commission constitutes a quorum to transact business. A vacancy on the commission does not impair the right of the remaining commissioners to exercise the powers of the commission as long as the majority remains.

The commission is authorized to employ a "secretary, examiners, experts, clerks, accountants, stenographers and other assistants". At present the staff of the commission includes: a secretary, a director of appraisals, an assistant director of appraisals (vacant), an industrial appraisal engineer, a statistician, eight consultant assessors, and a secretarial staff of three. All of these employees are subject to civil service.

The law provides that "the commission shall adopt reasonable and proper rules and regulations to govern its proceedings and to regulate the mode and manner of all valuations of real or personal property, appointments, investigations, inspections and hearings not otherwise specifically provided for."

The commission has the duties, power and authority:

1) To supervise the administration of and to enforce all laws for the assessment and levying of taxes;

2) To supervise the county assessors, boards of county commissioners, county boards of equalization, and all other officers and boards of assessment and levy, "to the end that all assessment of property, real, personal, and mixed, be

---

13. C.R.S. 1953, Sec. 137-6-1.

made relatively just and uniform and at its true and full cash value;

3) To require all county assessors, county commissioners, and county boards of equalization to assess all property of every kind or character at its actual and full cash value;

4) To "make a reappraisement of the property...in any county or municipal subdivision thereof...whenever in the judgement of the tax commission" such property "has not been assessed at its true and full cash value...to the end that all classes of property in such taxing district shall be assessed in compliance with the law";

5) To "require county assessors to place upon the assessment roll any property which may be found to have, for any reason, escaped assessment and taxation";

6) To provide forms of returns to be made by the assessors to its office;

7) To prepare and transmit to the assessors "such instructions as it deems conducive to the best interests of the state upon any subject affecting taxation, or the construction of any statute affecting taxation, the execution of which devolves on any county or local officer";

8) To "see that all laws concerning the valuation and assessment of all classes of property are faithfully obeyed";

9) To "issue such orders and instructions to the different taxing officers as will carry into effect the provisions of this chapter";

10) To "prescribe a uniform system of procedure in the assessor's offices and the form and size of all tax schedules, tax rolls and warrants, field books, plat and block books and maps, and all other notices and forms furnished to taxpayers, and all blanks, books and records used in the offices of county assessors";

11) To "investigate the works and methods of county assessors, boards of county commissioners, county boards of equalization, and county treasurers in the assessment, and equalization of taxes on all kinds of property by visiting the counties of the state";

12) To "require any assessor to appear before it" and "to examine such assessor, under oath, concerning the assessment of his county for the purpose of ascertaining whether such assessor has complied with the law in assessing property in his county", and to "issue process to bring such assessor before it;

13) To "call an annual meeting of the county assessors" and "to call a group meeting of two or more of the county assessors at such time and place as it may designate";

14) To "appear...in any court or tribunal in any proceeding in which an abatement or refundment of taxes is sought".

In addition, the commission has all powers of original assessment of all public utility corporations. It is required to recommend to the state board of equalization the amount that is to be added to or deducted from the valuation of property of each county in order to accomplish equalization at full cash value. It shall make a report annually to the governor and state treasurer of the operation and execution of all laws which it is required to administer, and its recommendations of such changes as in its opinion should be made in the tax laws of the state. It may approve or disapprove all petitions for abatement or refund of taxes, and no abatement or refund shall be allowed by the board of county commissioners if the application is disapproved by the commission. It shall pass on all petitions of levying bodies for permission to levy taxes in excess of statutory limitations.[14]

In earlier chapters of this report frequent reference has been made to the policies of the tax commission and its various activities. Its prescribed policies for the assessment of various classes of property have been set forth and explained in detail. Its real estate appraisal manual has been described, analyzed and criticized. Its annual circular No. 1 which sets forth matters of policy in the form of recommendations to the assessors has been discussed.

It prescribes policies and procedures to be used by the county assessors. However, it cannot be said that its performance of this function has been entirely satisfactory. Many of its policies are merely in the form of recommendations or suggestions, rather than orders and instructions. Many matters of assessment policy are left entirely to the discretion of the individual assessors. Many of the recommendations are the result of decisions made by the assessors as a group, rather than by the commission itself. Its stated policies are inconsistent in many respects. As has been demonstrated, its policies, even when properly executed, do not result in equalized assessments.

It does not seriously attempt to prescribe the use of uniform forms. About the only forms prescribed by the tax commission and used by all assessors are the abstract of assessment form which is supplied to the assessors, and the various forms of property cards used for recording real property appraisals.

---

14. All of the preceding statutory provisions are contained in C.R.S. 1953, Art., 137-6.

Its enforcement of the methods of assessment is ineffective. As has been demonstrated, assessors are permitted to use methods and procedures which vary from the requirements of the appraisal manual and other policies of the commission. They are allowed to change land valuations that have been established for their counties without prior consultation with the commission. They are allowed to discount appraised valuations of improvements without demonstrating justification. They are allowed to use appraisals made by the tax commission industrial engineer or not as they see fit, or to alter the appraisals.

Consultant assessors do visit the county assessors in their counties. However, in general, their inspection of what the assessors are doing is not very thorough. Their instruction of assessors has been inadequate. They have not succeeded in obtaining much uniformity of either procedures or results among the counties with which they work. They have provided considerable assistance to some assessors by helping them to make appraisals, or by doing appraisals or other work for them.

Considering the lack of equalization, which obviously exists, few recommendations are made by the tax commission to the state board of equalization for increases or decreases in assessed valuations.

Only one such recommendation was made in 1958. In 1956, recommendations were made for increases in the valuations of seven counties. In 1954, recommendation was made for an increase in the valuation of one county. Such is the recent history of tax commission recommendations.

It is not meant to imply that the tax commission does nothing. Through the efforts of the appraisal division an extensive reappraisal of real property was partially accomplished. Through its continued efforts, much is done to improve the assessments in a number of counties each year. For instance, during the current year reappraisals of agricultural lands are in progress in three counties where such reappraisal had not been previously accomplished; a complete survey has been made of assessed valuations of agricultural lands within two miles of all county boundary lines, as a step in the direction of attempting to equalize these valuations among counties; considerable research on residential construction costs has been accomplished, and preparation of some supplementary material for the appraisal manual is under way. Much has been accomplished in recent years by the part-time employment of a tax accountant who has inspected the assessment of merchandise, furniture and fixtures, in a number of counties. Through his efforts, the assessment of these classes of property has been improved in these counties. The tax commissioners themselves have made several changes in the assessment of public utilities in an effort to improve such assessments.

However, these are but a few of the many things that need to be done.

Many reasons can be found to explain the failure of the tax commission to fully accomplish its mission and in some degree to excuse

its failure. First, its efforts to accomplish equalization are sometimes thwarted by the law itself and court decisions relating thereto. In the case of Bohen v. Lake County, the Supreme Court ruled that the tax commission has no authority to order a change in the valuation of a single taxpayer's property after the county board of equalization has acted.[15] This decision has resulted in the peculiar situation that the tax commission may, during the course of the year, prior to the meeting of the county board of equalization, order the assessor to raise the assessed valuation on a particular property, the county board of equalization may then order him to reduce it, and the tax commission has to accept the decision of the county board as final for the current year. No further change can be made in the valuation, except as part of a uniform adjustment of valuations on classes of property, or all property in the county, until the next year's assessment.

The state board of equalization sometimes does not accept the tax commission's recommendations and approve an order for increase of valuation. This occurred in 1956 when the tax commission recommended increases in valuation of seven counties, and the state board of equalization refused to approve the recommendations.

Some assessors have a very unco-operative attitude. They refuse to obey the orders or follow the instructions of the commission, unless such orders or instructions coincide with their own opinions or desires. Some assessors do not recognize the authority of the tax commission, or recognizing it, choose to ignore it as long as they can get away with doing so. A possible explanation for the existence of this situation is the fact that while the law does specify in considerable detail the authority of the tax commission to supervise the assessors and enforce the assessment law, it does not specifically state among the duties of the county assessor that it is his duty to assess property in compliance with the provisions of law and the orders and instructions of the tax commission.

Some assessors are unable to accomplish what the tax commission would have them do for reasons which have been explained earlier in this chapter. They do not understand what is required, they do not have the ability to perform the work that is required, they are subject to local pressures which they are unwilling or unable to resist, they have insufficient capable help to accomplish the work, or they are handicapped by insufficient office space, equipment, or budget.

As with the assessors, the ability of the tax commission to perform fully its assigned task is hindered by many things of an administrative nature. It does not have enough man-power to accomplish

---

15. Bohen v. Lake Co. 109 Colo. 283, 124 P.2d 606. (1942)

everything which should be done. At least some of its employees are not well qualified to perform the tasks assigned to them. The salaries paid are insufficient to attract well-qualified people. The security of civil service tenure has its effect on the industry, ambition, devotion to duty, and efficiency of the personnel. During the past year, the position of assistant director of appraisals has been vacated by death, two of the consultant assessors have suffered heart attacks, and one of the commissioners has suffered ill health.

Extensive and continuous research is needed to develop good methods of assessing property, to determine what are proper assessed valuations for various types of property, to maintain current information on market values of all classes of property, to provide assessors with information needed by them in making assessments, and so forth. The commission is not staffed to conduct this research, although an effort is made to do a small amount of it. The industrial appraisal engineer is able to do some construction cost analysis and gather some information on equipment costs, but the major part of his time is required for the appraising of industrial property about the state. The director of appraisals has little time for concentrated research effort, if he is to accomplish anything in the supervision of the county assessors. In short, at least a small research staff is needed but is not available.

A specialized staff to assist the commission in the assessment of public utilities is needed. At present, most of the work of making such assessments is performed by the commissioners themselves. A skilled accountant, and possibly an appraisal engineer, are needed to do the investigating of accounts and inspection of properties which are necessary for better assessments of public utilities.

A somewhat larger staff of field men (consultant assessors) may be needed for investigation of the work of the assessors, and for adequate supervision and instruction. More specialists are needed in the field--men who will cover the entire state supervising the assessment of special types of property, such as experts on the assessment of merchandise, livestock, agricultural lands, mining properties, commercial and industrial improvements.

Like the assessor, the commission has budgetary problems. Its budget requests for needed projects are not always approved. For instance, in 1957, a request for an increased appropriation to implement a plan for the establishment of a combined staff of specialists for research and supervision was denied.

Perhaps, the main reason for failure to achieve effective administration of assessment laws can be found in the weaknesses of a commission form of administration. Regardless of the individuals who compose a commission, it is not possible for a commission of three or five or any number of members to provide aggressive, expeditious, efficient administration of anything. The need for agreement on the part of at least

two of the commissioners on all matters of policy slows up the process of administration. The involvement of all or part of the commissioners in details of public utility assessment, passing on petitions for abatement or refund, or petitions for increase of tax levies, and visitations among the counties, sometimes delays their meeting to determine matters of assessment policy for long periods of time. When they do meet it is not always possible to arrive at an early decision.

The fact that the commissioners have civil service status also has its effect. The security of lifetime tenure and the weakness of provisions for removal provide no spur to aggressive administration. The lack of provision for any penalty to be imposed upon the commission for failure to perform its duties or accomplish its assignment also has its affect.

The tax commission as now organized performs a dual function of assessment administration and of quasi-judicial deliberation. The one function is concerned with the assessment of public utilities, the formulation of assessment policies, and the supervision of local assessment. The other is concerned with the problem of equalization of all assessments, hearings on appeals and considering petitions for increases of tax levies. The performance of these two types of functions by the same persons is not consistent with sound principles of government. It results among other things in the commission sitting in judgement upon its own actions when it compares its own assessments of public utilities with the local assessments of county assessors. Furthermore, the performance of these two functions tends to interfere with good performance of either of them.

The State Board of Equalization

The constitution provides "There shall be a board of equalization for the state, consisting of the governor, state auditor, state treasurer, secretary of state and attorney general. The duty of the said board of equalization shall be to adjust, equalize, raise or lower the valuation of real and personal property of the several counties of the state, and the valuation of any item or items of the various classes of such property...The state board of equalization...shall equalize to the end that all taxable property in the state shall be assessed at its full cash value, and also perform such other duties as may be prescribed by law; provided, however, that the state board of equalization shall have no power of original assessment."[16]

---

16. State Cons., Art. X, Sec. 15.

The law provides that the state board of equalization shall sit on the third Monday of September, for the purpose of examining, adjusting and equalizing the assessments in the several counties of the state, and that on or before the fourth Monday in September, it shall complete the equalization.[17] It also provides that "If in the opinion of the state board of equalization upon satisfactory information submitted any county assessor has omitted taxable property in his county from the abstract of assessment, or has assessed the property of his county palpably and manifestly below its true value, or has failed to verify his return, and if said state board of equalization is likewise of the opinion that such delinquency operates as a fraud upon the state revenues, and that such revenues will be seriously impaired thereby, then the state board of equalization, upon reasonable notice to the assessor and after summary hearing, shall require the delinquent assessor to forthwith make such corrections and additions to the assessment as will make the same in accordance with the statutes unless the board also further finds that said erroneous assessment was willfully made, in which case proceedings shall be had as provided in section 137-7-6.

"Provided, that in such case before any such corrections or additions to said assessment shall be required, if desired by the assessor, he may have an appeal from the decision of the state board of equalization to the district court of the county of which he is the assessor, which appeal shall be taken as appeals are taken from the boards of county commissioners, and shall be heard summarily."[18]

It provides that if the governor "is satisfied from the evidence that the assessor willfully omitted to assess taxable property in his county, or willfully refused to assess the same at its true value, according to law, or failed or refused to make the affidavit required by section 137-3-40, he shall enter an executive order removing said assessor from office; whereupon the county commissioners shall fill the vacancy, but shall not reappoint the assessor so removed. And such appointee shall likewise be subject to removal, until a just and lawful assessment shall have been obtained."[19]

"It shall be the duty of the state board of equalization to examine the abstracts of assessments as submitted by the state tax commission. The state board of equalization shall forthwith examine the abstract of assessment of each county as submitted by the state tax commission and make a record of its action on the abstract of each county and

---

17. C.R.S. 1953, Sec. 137-7-1 and 7.

18. C.R.S. 1953, Sec. 137-7-5.

19. C.R.S. 1953, Sec. 137-7-6.

certify the same to the county assessor, and the county assessor shall forthwith add to or deduct from each tract or lot, and its improvements, of real property and all personal property in his county the required per cent, or amount on the valuation thereof as it stands after it has been equalized by the state board of equalization, adding or deducting in each case any sum less than five dollars so that the value of any separate tract or lot and its improvements shall be ten dollars or some multiple thereof."[20]

"The state auditor shall transmit to the clerk of each county a statement of the changes, if any, which have been made in the assessments, and the rate of tax which is to be levied and collected within his county, which shall not exceed the limit permitted by the constitution; and when the board fixes no different rate, or if for any reason the board fails to sit, or the county clerk should fail to receive the statement of the rate of tax ordered by them, that rate shall be the same as levied for the preceding year; and the assessor of each county, in making up the tax list, shall compute and carry out in the proper column a state tax at the rate aforesaid. Any assessor failing herein may be fined in any sum not less than five hundred nor more than three thousand dollars, to be recovered by action of debt in the name of the people of the state of Colorado, in any court of competent jurisdiction."[21]

The law further provides that on or before the second Monday in September, the tax commission "shall determine whether the real and personal property of the several counties in the state shall have been assessed at its true and full cash value and if, in the opinion of the commission, the real or personal property within any county in the state as reported by said county assessor to the commission is not on the assessment roll at its true and full cash value, the commission shall determine the increase or decrease in the valuation of such county by such rate per cent, or such amount as will place said property on the assessment roll at its true and full cash value."[22] "When the commission has determined the true value of the real and personal property in the several counties, the commission shall transmit to the state board of equalization a statement of the amount to be added to or deducted from the valuation of the real and personal property of each county, specifying the amount to be added to or to be deducted from the valuation of the real or personal property."[23]

---

20. C.R.S. 1953, Sec., 137-7-8.

21. C.R.S. 1953, Sec., 137-7-7.

22. C.R.S. 1953, Sec., 137-6-31.

23. C.R.S. 1953, Sec., 137-6-32.

The state board of equalization, consisting of five elective state officials, serving ex officio on such board, meets each year for a period of one week. During that week, it is expected to examine the assessed valuation of all taxable property in the state and determine whether and how much it should be increased or decreased, in whole or in any of its parts. It does not have a staff which can conduct investigations and report to it any facts relating to the assessment of property. It's members are public officials whose primary duties are unrelated to the assessment of property or the equalization of those assessments, and who have little time to devote to the problem of equalization. Therefore, they rely upon the tax commission to conduct investigations and report to them what changes should be made in the assessed valuations. The actions of the board are to either approve or disapprove the recommendations of the tax commission.

In the forty-four years since 1914, when the present constitutional provisions relating to the duties of the state board of equalization were adopted, no changes in valuation were ordered by the board in eighteen of the years. Changes were ordered in twenty-six of the forty-four years. The total changes in valuations is $109,118,698 in increases, and $300,372,049 in decreases. The greater part of the decreases were ordered in 1931, 1932, and 1933. The total decreases ordered for those three years being $249,999,442.

Since 1940, the effect of orders of the state board of equalization upon the assessed valuation of the state has been much less significant than the total for the forty-four year period would indicate. During this later eighteen year period, only two increases totaling $16,235,520 and no decreases have been ordered.

It would appear that the state board of equalization has been very ineffective in accomplishing any equalization assessments. On the other hand, it can obstruct the efforts of the tax commission to achieve equalization by refusing to approve the recommendations of the latter body.

Findings and Conclusions

Many suggestions may be offered for reorganization of the assessment and equalization machinery of the State. There are several possible ways of reorganizing along different lines. In the remainder of this chapter there is set forth, first a suggested plan of reorganization, followed by some alternatives.

Preferred Plan of Reorganization 1) Department of Property Taxation. The distinct function of administering the assessment of property now performed by the Colorado tax commission should be separated from the quasi-judicial functions of equalization, hearing appeals, and acting on petitions by the creation of a department of property taxation. This department should be headed by a director of property assessment, appointed by the governor, and preferably exempt from civil service status. Such

director of property assessment should be granted authority to make rules and regulations for the internal organization and operation of the department, subject to the approval of the governor, and to create and abolish positions within the department, establishing minimum qualification requirements for such positions, subject to the approval of the governor, and the availability of appropriations. All duties, power and authority to assess the property of public utility corporations, to formulate and prescribe assessment policy subject to law, to supervise the assessment of property, and to enforce assessment law should be transferred from the tax commission to this department of property assessment.

2) Department of Property Taxation, Duties of. The director of property assessment should have the duties and exercise the power and authority:

a) To assess the property of public utility corporations as provided for by law.

b) To conduct research into matters of assessment and property values to enable him to formulate and prescribe methods of assessment which will produce equalized assessments.

c) To prescribe, subject to provisions of law, methods of assessment to be used by county assessors.

d) To prescribe uniform systems of procedure to be used in the offices of county assessors.

e) To prescribe the form of all tax schedules and all other notices and forms furnished to taxpayers, tax lists and warrants, plat and block books, and all blanks, books and records used in the offices of county assessors.

f) To require county assessors, subject to penalties as provided for by law, to assess all taxable property, excepting public utilities, according to the methods of assessment prescribed by law, or prescribed by said director of property assessment pursuant to law, and to use such uniform systems of procedure and forms as are prescribed by him.

g) To require county assessors to make such reports and provide such information as he may prescribe.

h) To supervise the county assessors, boards of county commissioners, and county boards of review to the end that all taxable property be assessed at a valuation which is relatively just and uniform.

i) To enforce all laws for the assessment of taxable property.

j) To organize and conduct an annual school of instruction for assessing officers covering the laws relating to the assessment of property, the duties of the assessors office, the policies of the department of property taxation, the principles and techniques of appraisal, principles of accounting, land title and description, public relations, and any other subjects that the director may require; to enter into a co-operative arrangement with any state institution of higher education for the sponsorship of such school, and to employ qualified instructors; and to organize such school on both an elementary and an advanced level, for the benefit of both inexperienced and experienced assessing officers.

k) To publish and distribute to assessors a complete manual of instructions, in loose leaf form, including assessment laws, court decisions, opinions of the Attorney General, the duties of the county assessor, all methods of assessment, policies, procedures and forms prescribed by him, and such other information and instructions as he may deem necessary and advisable, and to revise such manual annually.

l) To enforce the provisions of the Realty Recording Act, and with the real estate conveyance information provided thereby, to conduct a continuous sales-ratio study for use in the formulation of methods of assessment, in the equalization process, and for the benefit of any other state agency that may have use for such sales-ratio information.

m) To conduct examinations for candidates for appointment as county assessor, and to certify lists of eligible candidates to the proper authorities.

3) Colorado Tax Commission. The Colorado tax commission should be retained and should have the duties and exercise the power and authority:

a) To raise or lower assessed valuations of individual properties, entire classes of property, or the total valuation of a county, to the end that assessed valuations of all property in the state shall be equalized.

b) To hear appeals of taxpayers from the rulings of county boards of review in cases of objections to assessments, and to approve or disapprove all orders of county boards of review increasing or decreasing assessed valuations.

c) To approve or disapprove all petitions for abatement or refund of taxes which have been granted by boards of county commissioners.

d) To hear objections by county assessors, county commissioners, or taxpayers concerning orders or instructions issued by the director of property assessment concerning the assessment of public utility property and the distribution of such assessments.

The Colorado tax commission should have no power or authority in the making of original assessments of public utilities nor in the supervision of county assessors in the assessment of other property.

The duty, power and authority to approve petitions for tax levies in excess of statutory limitations should be removed from the tax commission, and it should be provided that no levies may be made in excess of statutory limitations without a vote of the taxpayers upon whom such levies would be imposed.

4) Civil Service Status. The members of the Colorado tax commission, in order to provide responsibility for performance of assigned duties, should be exempted from civil service status, and definite provisions of law should be enacted providing for their removal from office for failure to perform their duties as prescribed by law or for failure to enforce the provisions of law.

5) Appropriations. Such funds should be appropriated to the department of property taxation and the Colorado tax commission to enable them to employ such personnel and make such expenditures as are necessary for the performance of their assigned duties.

6) Salary Grades. All positions in the department of property taxation and the Colorado tax commission should be graded, for purpose of compensation, sufficiently high to attract people who are competent to perform the duties to which they are assigned.

7) State Assessment Advisory Board. There should be created a state assessment advisory board to advise the director of property assessment in matters of assessment policy. Such advisory board should be composed of the three tax commissioners, six county assessors, and four legislators. Such advisory board should meet with the director of property assessment at least once every three months upon the call of the director of property assessment, and the members of such board should be paid mileage and expenses for attendance at such meetings from funds appropriated to the department of property taxation.

8) Duties of County Assessor. In order to emphasize the authority of the department of property taxation to enforce the use of prescribed methods and procedures, it should be provided by law that it shall be the duty of the county assessor of each county, and he shall have and exercise power and authority;

a) To list and assess all taxable property which has legal situs for purposes of tax assessment within his county at the full cash value thereof, excepting the property of public utility corporations.

b) To list all real property within his county which is exempted by law.

c) In assessing property, to comply with all provisions of law relating thereto, and all lawful orders and instructions of the county board of equalization, the Colorado tax commission, the director of property assessment and the state board of equalization.

d) To maintain such records, follow such procedures, and render such reports as may be required by law or prescribed by the director of property assessment.

e) To attend, in person, such meetings, conferences, hearings, schools of instruction, or other assemblies as may be called by the director of property assessment.

f) To certify, as provided for by law, the total assessed valuation within each taxing jurisdiction in his county as made by him, and as adjusted by him in compliance with any orders relating thereto issued by the county board of review, the Colorado tax commission, or the director of property assessment.

g) To compile a tax list for delivery to the county treasurer listing the assessed valuations as made by him and as ordered by the county board of review, the Colorado tax commission, or the director of property assessment, and extend thereupon the tax levies as certified to him by the proper authorities as provided for by law.

h) To perform such other duties as may be required by law.

9) State Board of Equalization, Abolition of. A proposal for amendment of the Constitution should be submitted to the electorate providing for the abolition of the state board of equalization, leaving the final authority for equalization with the Colorado tax commission.

10) County Boards of Equalization, Abolition of. A proposal for amendment of the Constitution should be submitted to the electorate abolishing county boards of equalization.

11) County Boards of Review. In place of the county board of equalization, a county board of review should be created in each county. Such county board of review should consist of one representative of each of the following property interests: agriculture, business, industry, homeowners, and either a realtor or a person experienced in building construction; provided that if the assessed valuation of property represented by any of these interests should be less than five per cent of the assessed valuation of the county, such interest should not be represented on the board, and the major property interest of the county should be entitled to an additional member on the board.

Such county board of review should be selected annually by a county conference board composed of the county commissioners, the presidents of each board of education in the county, and the mayors of each incorporated town and city in the county, each group casting one vote as a unit.

Such county board of review should hear objections of taxpayers claiming that the assessed valuations of their properties are erroneous or excessive after such taxpayers shall have filed objections with the county assessor, as provided for by law, and shall have been denied any adjustment of assessed valuation by the county assessor in writing. The actions of the board should be subject to approval of the Colorado tax commission. Such board should also act in an advisory capacity with the county assessor in matters of local assessment policy.

12) County Treasurer, Assessment Authority. The county treasurer should have no authority to make subsequent assessments, to make corrections in the tax list, nor to supply omissions from the tax list, but should have the duty, power and authority to request the county assessor to make such corrections and supply such omissions as he may discover a need for, and upon the neglect or refusal of the county assessor to comply with such request, to report such neglect or refusal to the director of property assessment.

13) County Assessor, Appointment of. A proposal for amendment of the Constitution should be submitted to the electorate providing:

a) That the county assessor shall be selected by a county conference board composed of the county commissioners, the president of each board of education in the county, and the mayor of each incorporated town and city in the county, each of the three groups casting a single vote as a unit, and the votes of at least two of the three groups being required to select an assessor.

b) That the county assessor shall be selected and appointed by such board from among a list of candidates who have been certified as eligible for such appointment by the director of property assessment after examination on their qualifications; whenever a county assessor is to be selected, the director of tax assessment shall call for and publicize an examination to be conducted at the county seat of each county, shall examine all applicants upon their knowledge of laws relating to the assessment of property, the duties of the office of county assessor, the principles and techniques of appraisal, and such matters of general knowledge as may be applicable to the office of county assessor, and shall certify as eligible for appointment as county assessor all applicants who shall pass such examination; and all applicants should be afforded an opportunity to prepare for such examination by studying the subjects covered therein, and should be provided with study material relating thereto.

c) That the county assessor shall be appointed for an indefinite term of office and shall be subject to removal at any time as provided for by law.

14) County Assessor, Salary. A proposal for amendment to the Constitution should be submitted again to the electorate providing that the salaries of county officers may be increased or decreased at any time.

15) County Assessor, Salary. A proposal for amendment of the Constitution should be submitted again to the electorate providing that the General Assembly may classify counties for purposes of designating the salaries of county officers according to any criteria which may reflect the difficulty and responsibility of the offices in each county.

16) County Assessor, Salary. If the preceding two proposals should be adopted, a realistic salary scale for county assessors commensurate with the responsibility of the office should be provided.

17) County Assessor, Budget. County assessors should be provided with sufficient funds to staff and equip their offices adequately for the performance of the duties required of them.

18) Assessment Specialists. It should be made possible for several county assessors to arrange to employ jointly specialists in assessment, such as real property appraisers, tax accountants, etc., each county paying according to the time spent in the county by such specialists.

Alternate Plans. 1) Colorado Tax Commission. If the suggested department of property taxation should not be created and there should be no separation of the administrative and judicial functions of the tax commission, the tax commission should be given the same duties, power and authority relating to assessment administration as it is suggested should be given to the department of property taxation, and also those quasi-judicial duties, powers and authority which it is suggested should be given to the tax commission.

2) If the tax commission should not be exempted from civil service status, a manner of removal for incompetence, or neglect, or refusal to perform the duties assigned to it should be provided by law.

3) If the suggested department of property taxation should not be created, there should be created a state assessment advisory board to advise the tax commission in matters of assessment policy, composed of seven county assessors and six legislators.

4) If the state board of equalization should not be abolished, it should be authorized to order increases or decreases in the assessments of individual properties when such increases or decreases are recommended to it by the tax commission.

5) If the county boards of equalization should not be abolished, the suggested county boards of review could still be created and could act subject to the approval of the county boards of equalization; if such county boards of review should not be created, the actions of the

boards of equalization should be subject to approval of the tax commission.

6) If an amendment to the Constitution providing for the appointment of county assessors should not be adopted, it should be provided that no person shall be elected as county assessor who shall not have been examined and certified as eligible as suggested in connection with the appointment proposal.

7) If an amendment to the Constitution providing for the appointment of county assessors should be adopted, instead of an indefinite term subject to removal at any time, it could be provided that the assessor be appointed for a term of four years, at the end of which time, the county conference board could vote on the question of retaining the incumbent assessor for another four year term, a negative vote being followed by the selection of another person for the office; or it could be provided that at the end of each four year term, the county conference board would select an assessor from among all candidates who had been examined and certified as eligible.

Such legislation as is needed to implement such of the foregoing conclusions as are deemed necessary should be enacted.